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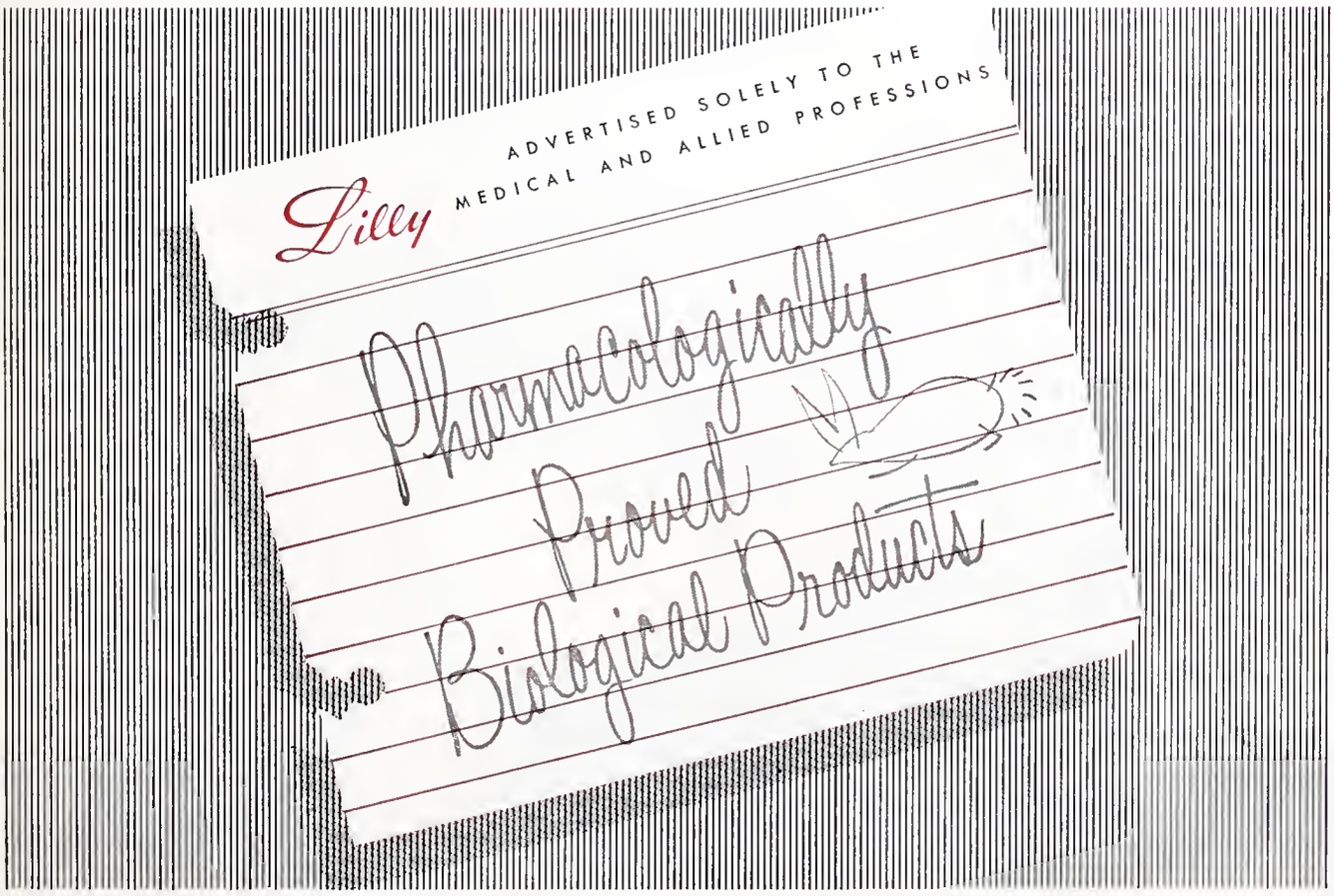
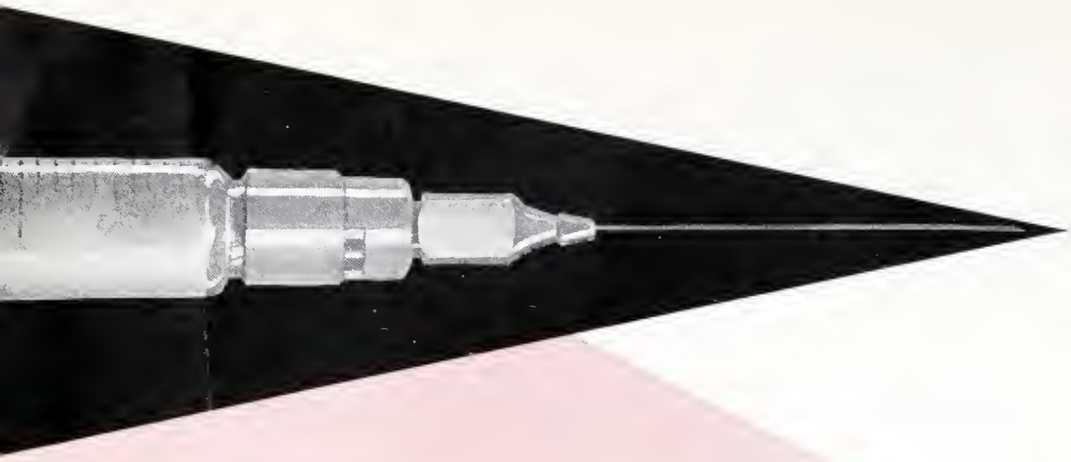
THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

VOL. L No. 1

FORT SMITH, ARKANSAS





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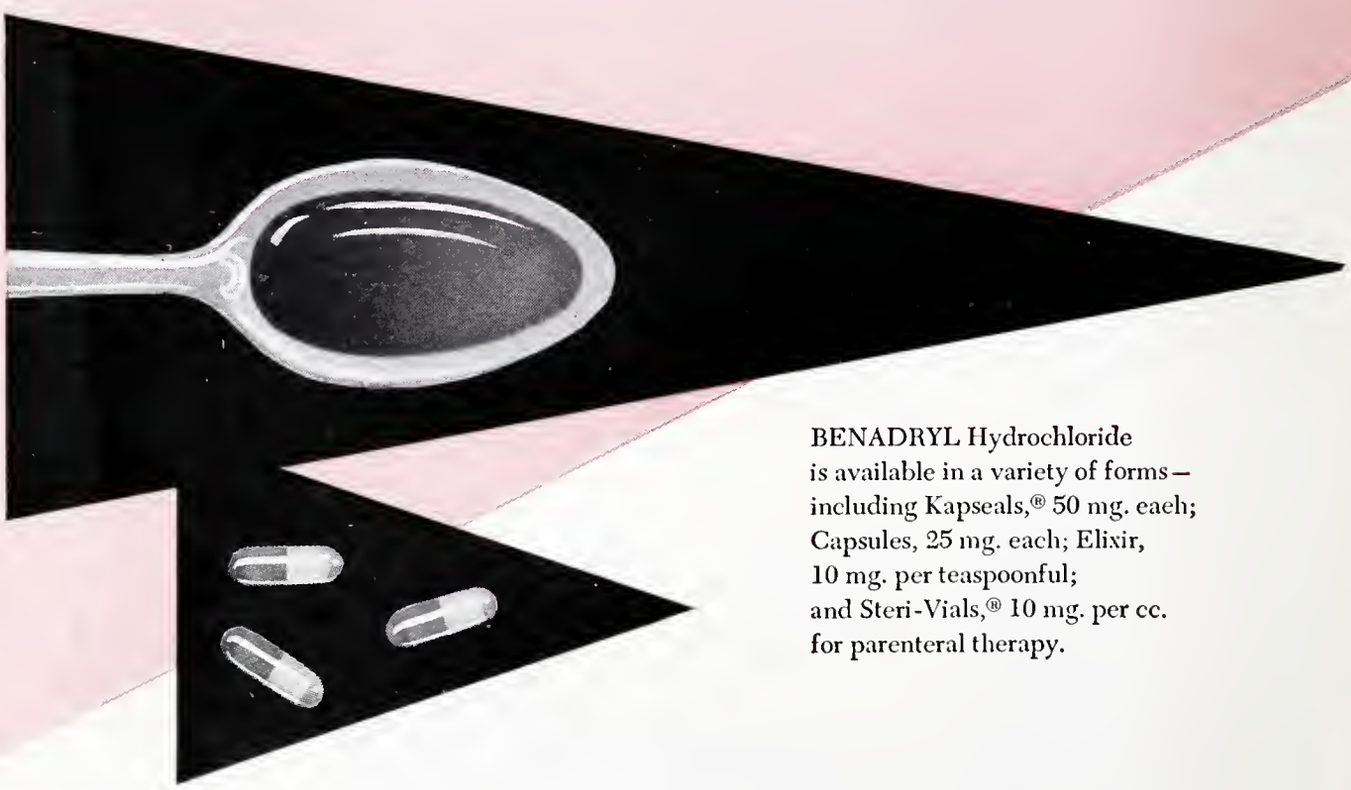

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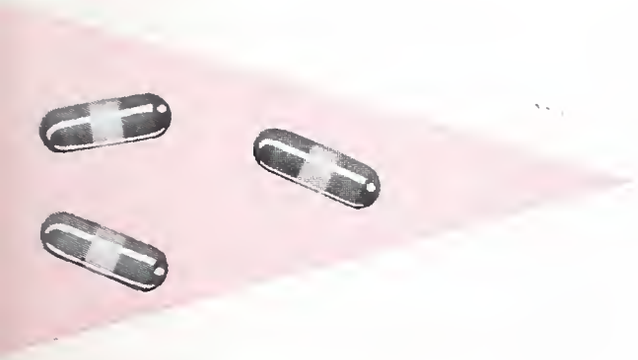

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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• SPECIAL FEATURES

77th Annual Session Arkansas Medical Society 1

Proceedings 77th Annual Session Arkansas Medical Society 6

Twenty-ninth Annual Session Woman's Auxiliary to the Arkansas Medical Society 16

Officers of the Arkansas Medical Society, 1953-1954 14

Committees for 1953-1954 15

• FEATURES

Ectopic Pregnancy (Tubal Abortion) in a Rudimentary Horn of Uterus, Associated with Renal Agenesis 18

A New Partnership 19

Editorial 22

"Sparks From the Secretary" 23

Obituary 23

Tuberculosis Abstracts 24

Personals and News Items 25

Proceedings of Societies 27

Woman's Auxiliary News 28

Book Review 28

R. C. DICKINSON, M. D.
Horatio

President
Arkansas Medical Society
1953-1954

The JOURNAL
OF THE ARKANSAS MEDICAL SOCIETY
PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. L JUNE, 1953 No. 1

77th Annual Session . . . .

ARKANSAS MEDICAL SOCIETY

PRESIDENT'S ADDRESS*
(First General Session)

S. A. DRENNEN, M. D., Stuttgart

Members of the Arkansas Medical Society, Auxiliary, and Guests:

As your President it now becomes my duty to give an accounting of my stewardship for the year ending.

For your information I have travelled quite extensively during the year in the interest of our organization. Two trips were made to Chicago, one the A.M.A. meeting and the other a meeting of the American Medical Education Foundation. It was my pleasure, as your ambassador, to attend the dedication of that magnificent and beautiful structure, the Texas Medical Library building in Austin.

It has been my pleasure to visit, by invitation, your 1st, 2nd, 3rd, 4th, 5th, 7th and 10th Districts. Owing to unavoidable circumstances I was unable to accept the invitation of the 9th District, and my sincere apologies to those fine gentlemen. These visitations were a distinct pleasure, the membership was most hospitable and cooperative. It has been a great pleasure to work with the Council this year and I congratulate that fine body of men for their constructive and progressive work. The many committees have done their work in splendid fashion; especially do I wish to pay tribute to the Rural Health, Public Relation and Program Committees. The Auxiliary has been most willing to lend their efforts in every cooperative way. I wish to commend our genial executive secretary and his staff for their wholehearted and untiring efforts during the year.

I wish to commend the institution founded by our organization, namely, the Blue Cross and Blue Shield Health Insurance. This institution has certainly made great strides since its incipiency. It is the duty of every member of our organization to sell this economic protection to our patients.

Gentlemen, in the next few moments I should like to call your attention to the program suggested for this year. As you know, this consisted of three phases:

1. The furthering of our Rural Health program.
2. Public Relations, and
3. Assistance to the American Medical Education Foundation.

The first, or Rural Health, has proven beyond a doubt that it is a worthwhile part of our program, attested to by the fact that the conference held in this city last August was attended by more than 600 lay citizens of this state. May I say that practically every county in the state was represented; these people came for a specific purpose—that of learning better methods of how to make their respective communities a better place to live from a health standpoint. This year your Rural Health Committee mailed more than 600 questionnaires to those citizens who attended the previous conferences, asking them to manifest their views as to how to improve the program. The response to these questions was most heartening to your committee. These suggestions should make for a more wholesome and instructive conference. Our organization should be quite proud of the fact that with only two Rural Health Conferences, Arkansas has gained national recognition. My sincere thanks to this committee for their cooperative and untiring work.

I come now to the second phase of the program: Public Relations. This committee has spent a lot of time and effort on this part of the pro-

* Read before the Seventy-seventh Annual Session of the Arkansas Medical Society, April 20, 1953.

gram; our first Public Relations conference was held here last September and the attendance exceeded our expectations. Three or four decades ago Public Relations were unknown as we see and use them today. What is Public Relations? My friends, a simple man would answer 'It's the way you get along with folks, depending mostly on how you treat them.' If your dealings with your patients are fair like the Golden Rule says you wish to be handled, and you are following the precepts of the teaching of Hippocrates, you don't need an expert to convince your fellow man. He will be your friend, trust you, even fight for you. But, my friends, if you take unfair advantage of him, go back on your word, treat him with less than common decency, you may expect him to turn to those who promise different things—I believe you know what I mean.

The practice of medicine during the last two decades is changing economically just as rapid as it is scientifically. The individual members of our organization are having more and more competition from governmental agencies, philanthropic foundations, health centers, and health groups. What are we going to do about it? Here is what we can do, give the best possible medicinal care at the lowest possible cost. I see no reason why we should offer any apologies nor make any sacrifices. We are all cognizant of the fact that our professional services, since 1940, have increased only a little over half as much as the whole cost of living. Please remember this, regardless of what business a citizen engages in, he is entitled to a legitimate profit and so are we, my friends. However, in making this legitimate profit we should keep that high esteem of our patients; never shall we lose sight of the fact that our patients are people, not just case numbers. Give them a little bit extra; never give them the impression you are doing them a favor. Remember, the housewife returns to the grocer who gives that extra potato.

We can reduce the cost of illness in many ways; don't sell short the lowly office visit and the house call, they are still the most economical way of practice. Some doctors frown upon those patients who ask about the cost of treatment. It is your absolute duty to guide that patient financially as well as medicinally. How many of you, my friends, have purchased a suit of clothes without asking the price?

We cannot put a bargain price on our services like the mass production outfits do, but we can and do give more and better health services per dollar and can do even better.

We are not fighting against ideas or people, but to perpetuate a time proven way of medicinal care which we are still convinced is the best. Should something better come along you can bet that it will prevail.

My friends, this is no blah blah. I am trying to give you the very essence or foundation of good Public Relations, and let me say there is no substitute.

Before we advertise the best box of apples in town, let's replace the rotten fruit. We are not perfect and surely we should be the first to recognize same and hasten to correct it; remember, my friends, you and I are individual ambassadors of good public relations and we must not falter.

I come now to the last major phase of our year's program—the American Medical Education Foundation. In a short and brief way I shall recall the reason for the creation of this foundation. You will remember we were told that there are only 79 Class A medical schools in these United States today. A few of these schools are of long standing and only a decade ago the thought of needing financial aid was impossible due to endowments, etc., due to economic changes over which those schools had no control. There was a great danger of these schools coming under Federal control and to prevent this happening, the American Medical Association created the Foundation by contributing one-half million dollars, and asked the State Medical Societies to contribute to this fund. You were told that your individual contributions could be earmarked for your own school of choice. Now let us have a look at our own Medical School, of which we are justly proud.

For the 1951-52 fiscal year our school received the sum of $21,013.00 and for this current year $15,475.00 and the sum of $500.00 from direct donations, making a total of $36,988.00. Now, gentlemen, let us have a look at what our 1,140 members have contributed in the past two years. From 1951 to January, 1952, the sum of $215.00. From January, 1952, to March, 1953, 77 members contributed the sum of $1,866.00, making a total of $2,081.00. So you see, gentlemen, the doctors outside the State of Arkansas have contributed to our school the sum of $34,907.00.

My friends, this is a dismal picture to present to you on this occasion. I am sorely afraid that we have forgotten a part of the oath of that erudite gentleman, Hippocrates, of 400 B. C., who said 'I swear to share my substance with him and relieve his necessities if required.' It would seem to me, my friends, the Arkansas Medical Society

has missed the boat. Gentlemen, what we need today in our profession more than any other thing I can call to mind is men of courage to speak out fearlessly and courageously for what they know to be right.

When the chips were down you gentlemen fought the good fight against socialized medicine and you inspired thousands of others to follow your example and you won new prestige.

May I remind you that our system of government is based on the right of the individual under the law, it is based upon the tenets of Christianity, the Ten Commandments, the Sermon on the Mount, the Golden Rule; yes, and on the very principles enunciated by that great philosopher, Hippocrates, a half century before Christ.

Gentlemen, we must stand and fight these creeping diseases called complacency, indifference and irresponsibility. We must have a rebirth of responsibility and a resurgence of freedom.

Now I conclude with these words: We must do all in our power to preserve the precepts of our organization; we must live our daily lives to the honor and glory of God whose universal laws are the cornerstone of the nation we love, and, my friends, if we do these things we can continue to enjoy the blessings of this great liberty loving nation.

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PRESIDENT'S INAUGURAL ADDRESS

R. C. DICKINSON, Horatio

I have no words that express to you my appreciation, or the incredibility of my receiving the great honor of being elected President of the Arkansas Medical Society. I must turn to Shakespeare for words to justify my being in this position:

"Fortune, the great commandress of the world,
Hath divers ways to advance her followers;
To some she gives honor without deserving."

It is not enough to receive this honor with humility, it should be received with a sense of obligation.

President R. C. Dickinson of Horatio making his Inaugural Address.
Immediate Past-President Drennen seated, and Secretary J. J. Monfort in the background.

I feel obligated to give my wholehearted support to all the previously adopted aims and programs of this organization.

Of course, being human, there are some of these programs to which I feel a stronger urge than to others. A bit of some of these are:

(1) Rural Health.

(2) Public Relations.

(3) More active participation in the Arkansas Medical Society, especially the younger men.

(4) To sell the Medical School to the people of Arkansas as a service institution.

Further, I feel an obligation to fortify and give new and stronger expression to that intangible—spiritual, if you will—aspect, which is the force that really binds this organization together.

I have spent my life in the practice of medicine. My father spent his life in the practice of medicine, and my boys are doing the same.

From this long and continual association, I have developed some strong and deep feelings about it. It is my life, my love, it is all I know.

I have become increasingly aware that the practice of medicine is not a static thing. It is forever changing. I am not referring to scientific changes, I am speaking of the philosophical, ethical, social and economic aspects of medicine. I feel that some of these changes have not been to the advantage of the doctor, the patient, or to the general public.

For example, I can remember when the doctor was universally loved. My father was loved and respected much more than I am.

I can remember when medicine was practiced to such satisfaction to the general public, that they were stimulated to transcribe the following to us: "There are men and classes of men that stand above the common herd; the soldier; the sailor; and the shepherd not infrequently; the artist rarely; rarer still, the clergyman; the physician almost as a rule. He is the flower of our civilization."

It is an admitted fact, to us and to the general public, that we have far outstepped our predecessors in the scientific practice of medicine. We are much more successful in the curing of disease, shortening of illness and saving lives, but they do not love and respect us as they once did.

Perhaps in our race of progress, we have run off and left some of the valuable aspects of human relationship, that we would do well to go back and pick up. This would require a critical analysis of ourselves and a reorientation.

Now, I come to the important part of my speech. With your help, we can make this a very successful year for the Arkansas Medical Society. Without your help, my feeble efforts will accomplish nothing.

RESOLUTION

WHEREAS, an all-wise Providence has seen fit to remove from our midst Dr. Theodore Freedman on January 7, 1953, who was a valued co-worker and a faithful member of the Pulaski County Medical Society, the Arkansas Medical Society and the American Medical Association since 1938, we the members of this society mourn and deeply regret his departure. He was born in New York on the 28th day of July, 1884. Attended the St. Louis University and the Missouri State University from 1905 through 1907, graduated in 1907 and secured his license to practice medicine in the State of Arkansas in 1909 after which he became connected with the Missouri Pacific Hospital Association where he remained active until his departure.

WHEREAS, as a Physician in his chosen field, he attained a great measure of distinction and won the respect of his colleagues, as well as the gratitude and love of a host of friends.

WHEREAS, Dr. Freedman was active in civic and fraternal organizations, particularly the Order of DeMolays wherein he was looked upon as the leader and guide of that organization, uplifting the lives of many young men,

THEREFORE be it resolved that the Pulaski County Medical Society express to his family the esteem in which he was held as a member of the Society and its heartfelt sympathy to the family at the untimely loss that they have sustained.

BE IT FURTHER RESOLVED, that a copy of this resolution be made a matter of record and placed in the Archives of the files of the Society; that a copy be sent to the family and a copy to the Journal of the Arkansas Medical Society.

This resolution is respectfully submitted to the members of the Pulaski County Medical Society by your committee.

H. Fay Jones, M.D.
S. C. Fulmer, M.D.
John McCollough Smith, M.D.

Arkansas Medical Society Officers for 1953-1954

Seated, left to right: Louis K. Hundley, Pine Bluff, Chairman of the Council; R. C. Dickinson, Horatio, President; W. R. Brooksher, Fort Smith, President-Elect.

Standing, first row, left to right: H. W. Thomas, Dermott, Vice-Councilor, Fourth District; J. Max Roy, Forrest City, Councilor, Third District; L. H. McDaniel, Tyronza, Councilor, First District; Randolph Ellis, Malvern, Vice-Councilor, Seventh District; Hugh Edwards, Searcy, Councilor, Second District.

Standing, second row, left to right: T. Duel Brown, Little Rock, Vice-Speaker, House of Delegates; Joe Verser, Harrisburg, Speaker, House of Delegates; Edwin Gray, Little Rock, Vice-Councilor, Eighth District; J. J. Monfort, Batesville, Secretary; J. M. Kolb, Clarksville, Councilor, Tenth District; Fount Richardson, Fayetteville, Councilor, Ninth District.

Standing, back row, left to right: Daniel H. Autry, Little Rock, Treasurer; John H. Wilson, Magnolia, First Vice-President; Wayne W. Workman, Blytheville, Vice-Councilor, First District; H. King Wade, Jr., Hot Springs, Councilor, Seventh District.

Officers not present: Thomas Wilson, Wynne, Second Vice-President; John P. Price, Monticello, Third Vice-President; C. A. Archer, Jr., Conway, Vice-Councilor, Second District; J. P. Williams, Jr., Brinkley, Vice-Councilor, Third District; D. E. White, El Dorado, Councilor, Fifth District; George Burton, El Dorado, Vice-Councilor, Fifth District; Harry E. Murry, Texarkana, Councilor, Sixth District; E. V. Dildy, Nashville, Vice-Councilor, Sixth District; John W. Smith, Little Rock, Councilor, Eighth District; Lee A. Dean, Rogers, Vice-Councilor, Ninth District; Roy I. Millard, Russellville, Vice-Councilor, Tenth District.

PROCEEDINGS

SEVENTY-SEVENTH ANNUAL SESSION ARKANSAS MEDICAL SOCIETY

Hotel Marion, Little Rock, Arkansas April 20th, 21st, and 22nd, 1953

FIRST GENERAL SESSION

Monday, April 20, 1953
Ballroom, 9:00 A. M.

The meeting was called to order by President Drennen.

The invocation was given by the Reverend Aubrey G. Walton, First Methodist Church, Little Rock.

President Drennen addressed the Society, reviewing the goals and accomplishments of his year in office.

The Scientific session, presided over by J. G. Gladden, proceeded as follows:

George E. Burch, Professor of Medicine, Tulane University School of Medicine, New Orleans, Louisiana—"Recent Advances in Cardiovascular Disease."

Samuel T. Haines, Rochester, Minnesota—"The Treatment of Exophthalmic Goiter."

John B. Youmans of Nashville, Tennessee—"Mineral Deficiency Diseases."

Emil Novak, Baltimore, Maryland—"Use of Hormones in Female Genital Cancer."

Allen C. Barnes, Columbus, Ohio—"The Dietary Management of the Pregnant Patient."

Monday Afternoon, April 20, 1:30-4:00
Symposia

The Internal Medicine Section met in a symposium conducted by Sanford Monroe of Pine Bluff in the Coach Room. Participating were:

George E. Burch, Tulane University School of Medicine, New Orleans;

John B. Youmans, Vanderbilt University School of Medicine, Nashville;

Samuel T. Haines, Mayo Clinic, Rochester, Minnesota.

The Section on Obstetrics and Gynecology held a symposium in the Ballroom Monday afternoon with Clyde Rodgers presiding. Participating in the discussions were:

Emil Novak, Johns Hopkins University School of Medicine, Baltimore, Maryland;

A. C. Barnes, Ohio State University School of Medicine, Columbus, Ohio;

Willis Brown, Little Rock.

FIRST SESSION, HOUSE OF DELEGATES

Monday, April 20, 1953, 4:00 P. M.

The meeting was called to order by Speaker Joe Verser.

Secretary J. J. Monfort called the roll of Delegates.

Fount Richardson, chairman of the Credentials Committee, reported that the credentials of the Delegates present had been examined, found correct and that a quorum was present. The following Delegates by counties were present:

ARKANSAS, R. H. Whitehead, Jr.; ASHLEY, M. C. Crandall; BAXTER, B. N. Saltzman; BENTON, Cal D. Gunter; BRADLEY, W. J. Hunt; CARROLL, D. K. McCurry; CLEVELAND, J. H. Scroggins; COLUMBIA, John Ruff; CRAIGHEAD, J. H. McCurry; POINSETT, L. H. McDaniel; CRAWFORD, S. D. Kirkland; CROSS, Thomas Wilson; DESHA, H. T. Smith; GARLAND, Loren Bohnen, G. C. Coffey; HEMPSTEAD, Jim Martindale; JOHNSON, Guy P. Shrigley; LAFAYETTE, R. H. Harrison; LAWRENCE, E. J. Cruse; LINCOLN, C. W. Dixon; LITTLE RIVER, Joe G. Shelton; LOGAN, James L. Smith; MILLER, Harry Murry; MONROE, E. D. McKnight; PHILLIPS, W. B. Connelly; POPE-YELL, Lewis A. Webb; PRAIRIE, J. C. Gilliam; PULASKI, Joe Sanderlin, John Roberts, Joseph Buchman, Samuel Thompson, Daniel Autry, Andrew Pringos, T. Duel Brown; RANDOLPH, W. E. Hamil; SEBASTIAN, A. S. Koenig, A. F. Hoge; ST. FRANCIS, E. J. Chaffin; UNION, J. M. Sheppard, J. B. Wharton; WASHINGTON, Fred Ogden, Vincent Lesh; WHITE, S. J. Allbright.

Upon motion (Kolb, Dixon) the House voted to seat the following members as Delegates in the absence of regularly elected Delegates:

BOONE, D. L. Owens; CHICOT, H. W. Thomas; DREW, Lewis Hyatt; FRANKLIN, Duane

Brothers; HOT SPRING, R. E. Peeples; HOWARD-PIKE, E. V. Dildy, Jr.; MADISON, Roger Edmondson; MISSISSIPPI, W. W. Workman.

Speaker Joe Verser introduced Mr. Oliver Field, Director of the Bureau of Investigation of the American Medical Association, who spoke briefly on the functions of his bureau.

Upon motion (Monfort, Murry) the House adopted as correct the minutes of the Seventy-sixth Annual Session as published in the June, 1952, Journal of the Arkansas Medical Society.

Committees of the Society, whose reports had appeared in the March Journal of the Arkansas Medical Society, were asked to read any supplement to their report which they might have. Published committee reports were referred to either Reference Committee No. 1 (H. W. Thomas, Chairman; Ross Fowler, Edgar J. Easley) or to Reference Committee No. 2 (Edwin F. Gray, Chairman; Edwin V. Dildy, Ben Saltzman).

Reports not previously printed in the Journal were read as follows:

REPORT OF THE COUNCIL

L. K. Hundley, Chairman

Action taken by the Council during the year 1952-53 is outlined and submitted to the House of Delegates:

The Council met on May 25, 1952, and took the following action:

1. Urged the Pulaski County Medical Society not to change the 1953 Annual Session meeting dates to the last of the week.

2. Approved the action of the State Advisory Committee to Selective Service in electing Gerald Teasley of Texarkana as chairman.

3. Directed Dr. Hundley and Mr. Schaefer to investigate the application for membership of Dr. Gerald Schumann of Des Arc.

4. Directed that a Councilor District Grievance Committee be appointed by each of the Councilors.

5. Changed the name of the Grievance Committee to Professional Relations Committee.

The Council met on August 24 and transacted the following business:

1. Accepted with regret the resignation of W. R. Brooksher as Secretary of the Arkansas Medical Society and elected J. J. Monfort of Batesville to fill the unexpired term.

2. Vice-Councilor Hugh Edwards was elected to fill the unexpired term of J. J. Monfort as Councilor of the Second District.

3. Authorized the printing and distribution of publicity for the 1953 Annual Session.

4. Decided to request the Auxiliary to take part in the American Medical Education Foundation Drive.

5. Directed the Executive Secretary and two members of the Public Relations Committee to attend the Public Relations Institute in Chicago.

6. Interviewed Dr. Gerald Schumann concerning his eligibility for membership, later directing that Dr. Schumann be notified that his only course of action was to apply for membership in the Prairie County Medical Society.

7. Decided to initiate action to dissolve or merge inactive county Medical Societies.

8. Appointed a committee to study the advantages and disadvantages of relocating the Executive Secretary's Office in Little Rock.

9. Directed that in the future the Speaker and Vice-Speaker of the House of Delegates and the Editor of the Journal be invited to attend all Council meetings.

10. Referred to the Committee on the Revision of the Constitution the question as to whether or not the Speaker and Vice-Speaker of the House of Delegates should be made Ex-Officio members of the Council by constitutional amendment.

On July 15th the Executive Committee, by mail vote, approved the increase of the Executive Secretary's Assistant's salary to $200.00.

The Council met on October 26, 1952, and took the following action:

1. Nominated Earle Hunt and W. R. Brooksher for the Governor's selection to fill a vacancy existing on the State Cancer Commission due to the expiration of the term of W. R. Brooksher.

2. Granted a one-year postponement of the proposed merger of the Cleveland County Society.

3. Directed the Legislative Committee to try to pass a new Medical Practice Act as presented by Mr. Peter Diesch.

4. Approved and accepted the Annual Audit Report of the State Medical Board.

5. Voted to suggest to the State Medical Board that it refuse to accept, on a reciprocal basis, the licentiates of the National Medical Board.

6. Approved plans for the first Public Relations Institute including the printing of the program and payment of guests' luncheons.

7. After hearing the report of the committee appointed to study moving the headquarters to Little Rock, the Council voted to keep the office in Fort Smith.

8. Authorized the employment of an additional assistant and the purchase of necessary equipment in the state Headquarters Office.

9. Directed that the Society retain the services of Mr. Peter Diesch for the coming Legislative year.

The Council met on January 18th and transacted business as follows:

1. Directed that a copy of the minutes be sent to all members of the Council as soon as possible after each Council meeting.

2. Appointed a committee to study the protest presented by representatives of Blue Cross-Blue Shield in regard to payments by the Workmen's Compensation Commission to the Veterans Administration Hospital.

3. Directed that due to the disregard of the previous nominations to the Cancer Commission by Governor McMath that the Society resubmit the names of W. R. Brooksher and Earle Hunt to Governor Cherry for his selection to fill the Cancer Commission vacancy.

4. Directed the Chairman of the Legislative Committee to:

A. Seek legislation to increase the revenue of the Basic Science Board.

B. Withhold action on a new Medical Practice Act for the time being.

C. Left to the discretion of the Legislative Committee any action on the request of the Physio Therapy Group to

attach their Examining Board to the State Medical Examining Board.

D. To cooperate with the Pharmacists in promoting a Barbiturate Law suggested by them.

E. To investigate the legality of reforming a Homeopathic Examining Board in Arkansas.

5. Decided to call an emergency meeting of all members to consider ways and means of retaining the 2-cent cigarette tax now earmarked for the use of the Medical Center.

6. Approved a legislative measure amending Act 277 to increase the number of members on the State Cancer Commission.

7. Decided not to intervene in the case of the appeal of Dr. E. J. Brown for membership in the Sebastian County Medical Society.

8. Rejected a resolution recommending a new procedure for the commitment of the insane to confinement.

9. Decided to pay Mrs. Lawson's expenses to the National Rural Health Conference in Roanoke, Virginia.

The Council met on February 3rd and transacted the following business:

1. Approved the request by the Nurses Anesthetist's Association that their meeting be held at the time the Medical Society's Annual Session is in progress so that the Anesthetists will have speakers available.

2. Referred to Mr. Diesch and Mr. Campbell impending legislation which would establish a Homeopathic Board in the state.

J. J. Monfort, Chairman of the Committee on Constitutional Revision, read constitutional revisions proposed by that committee and briefly explained each:

Your committee, after extensive correspondence, met in Fort Smith on February 15th and agreed that the following changes in the Constitution and By-Laws of this Society be recommended to the House of Delegates.

1. In Article IV (Composition of the Society), add Section 5 to read as follows:

Military Members. Regular members of the Arkansas Medical Society who are in the service of the Armed Forces of the United States not as career officers may be classified as Military Members, and carried on the rolls of their respective County Societies, as such. Military members shall have a waiver of dues during the time of service, provided that they are in good standing at the time they entered the Armed Forces.

2. In Article V (House of Delegates) add the words "First Vice-President" after the word president. This change will make the first vice-president an ex-officio member of the House of Delegates.

3. Delete the present Article VI and substitute the following:

The Council shall consist of the Councilors, the President, First Vice-President, President-Elect, Secretary and the Treasurer. The Speaker and Vice-Speaker of the House of Delegates, Past Presidents, and Vice-Councilors shall be members ex-officio without vote. Besides its duties mentioned in the By-Laws, the Council shall constitute the Finance Committee of the House of Delegates. A majority of the voting members shall constitute a quorum, in which consideration a Vice-Councilor acts and votes as a Councilor if the Councilor is not present.

4. Change Article VIII (Sessions and Meetings) to read as follows:

Section 1. The Society shall hold an annual session beginning the third Monday in April of each year, during which there shall be held daily general meetings, which shall be open to all registered members and guests.

Section 2. The place for holding each annual session shall be decided by the House of Delegates.

5. (A) Article X (Funds and Expenses), correct typographical error; $5.00 should read $25.00.

(B) Add: "New members, and Military members just returning from service, who are accepted for regular membership after July 1 of each year, are required to pay only one-half of the annual assessment."

(C) Substitute the word "Council" for the words "Finance Committee" in the last sentence of the present second paragraph.

6. In Article XIII (Amendments) delete the words "or sent officially to each component society at least two months before the meeting at which final action is to be taken."

7. In Chapter II, Section 1 of the By-Laws delete the words "Time and." This directs the House of Delegates to set the place of meeting of the next annual session.

8. In Chapter II add: "Section 3. In the event the previously selected place is unable to be host to the annual session, the meeting place may then be designated by the Council."

9. Chapter V (Election of Officers), add: "Section 1, (a) In the event of the death or removal of the President-Elect, the nominating committee at the next annual session shall present nominees for President and President-Elect in addition to the other officers."

10. Chapter V, Section 3, delete the last sentence and substitute the following:

In the event of the President's inability to serve, the first vice-president shall serve in his stead.

11. Chapter VIII (Committees), change Section 1 to read: "The standing committees of this Society shall be as follows:

1. Committee on Cancer Control.
2. Committee on Medical Legislation.
3. Committee on Public Health (Liaison with Public Health Department, Rural Health, Maternal Welfare, Tuberculosis, Heart Association, etc.).
4. Committee on Medical Education (Medical School and Post-Graduate Work).
5. Committee on Hospitals (Blue Cross, Hospital Liaison and Arkansas Hospital Association).
6. Committee on Public Relations (Speakers Bureau, Publications, etc., Liaison with Auxiliary, Veterans Administration, Civilian Defense, etc.).
7. Committee on Scientific Work and Exhibits (Scientific Program for annual session).
8. Committee on Arrangements for Annual Session (to work with local hosts committee on annual session, arrangements for hotel, golf, public gatherings, etc.)."

Section 1 (a) Additional Committees shall be considered sub-committees of the appropriate standing committee and one member of the standing committee shall be a member of the sub-committee.

Section 1 (b) Unless otherwise provided, these committees shall be appointed by the President for three-year

staggered terms. The committees shall consist of not less than six members each, with each president appointing two members for a three-year period. Any vacancies through death, removal or resignation may be filled by the President at the time the vacancy occurs and for the unexpired term of the vacancy. The President and Secretary shall be ex-officio members of all committees.

12. Insert Section 2 to read: The Cancer Control Committee of the Arkansas Medical Society shall represent the Society in all activities concerned with cancer in the state, shall directly supervise the activities of the Cancer Control Committee of the Woman's Auxiliary to the Arkansas Medical Society and shall cooperate with all agencies within the State of Arkansas dedicated to the problem of cancer.

13. The present section "2" (Committee on Scientific Work) to be numbered Section "3." The word "six" shall be substituted for the word "three" therein.

14. Present Section "3" (Medical Legislation) to be numbered Section "4" and the first two sentences deleted, to be replaced by the words: "The committee on Medical Legislation shall represent the society in all legislative practice."

15. Present Section "4" (Committee on Health and Public Instruction) to be numbered Section "5."

16. Present Section "5" (Committee on Medical Education and Hospitals) to be numbered Section "6" and the words "and hospitals" be deleted after the words "medical education" in the first sentence. Also delete the words "hospitals and" following the words "pertaining to" in the first sentence of this section. Add words "and Post-graduate Instruction" at end of first sentence. In the second sentence of the section add the words "and Arkansas Academy of General Practice" after the words "Arkansas School of Medicine."

17. Section 7 shall read: The Committee on Hospitals shall have referred to it all questions pertaining to hospitals and their operation; hospitalization of patients, hospital and health insurance, hospital-physician relationships, and shall function as liaison with the Blue Cross-Blue Shield and Arkansas Hospital Association.

18. The present Section "6" (Committee on Public Relations) to be numbered Section "7." Add "The subcommittee on Professional Relations shall function under this committee."

19. Section "8" amended to read: "The Committee of Scientific Works and Exhibits shall determine the character and scope of the scientific proceedings of each Annual Session. It shall prepare a scientific program for each Annual Session. It shall solicit and collect material from institutions and individual physicians of the state that is of scientific interest. This it shall arrange and exhibit at each Annual Session. It should particularly strive to obtain material that will more fully illustrate the papers presented in the general meetings of the society."

20. Chapter VIII, Section 9 to be amended to read: The Committee on Arrangements for the Annual Session shall provide suitable accommodations for the meeting places of the Society and the House of Delegates, the scientific exhibit, the committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary for publication in the program and shall make additional announcements during the session as occasion may require.

21. In Chapter IX (County Societies), Section 6, insert the words "except that" after "decision shall be final," continuing the sentence with "a county Society shall at all times," etc. In the same sentence delete the words "Council of the State Society" and substitute therefor the words "House of Delegates of the Arkansas Medical Society."

Upon motion (Monfort, Kolb) the House voted to accept the report as the first reading of the proposed amendments.

In meetings on the floor by Councilor districts, the Delegates selected the Nominating Committee as follows:

FIRST DISTRICT, L. H. McDaniel; SECOND DISTRICT, Sam Allbright; THIRD DISTRICT, J. Max Roy; FOURTH DISTRICT, H. T. Smith; FIFTH DISTRICT, J. M. Sheppard; SIXTH DISTRICT, Jim Martindale, Jr.; SEVENTH DISTRICT, C. Randolph Ellis; EIGHTH DISTRICT, John W. Smith; NINTH DISTRICT, D. L. Owens; TENTH DISTRICT, J. M. Kolb.

The House adjourned at 5:30 P. M.

SECOND GENERAL SESSION

Tuesday, April 21, 9:00 A. M.

The meeting was called to order by Vice-President W. A. Snodgrass, Jr., and the Scientific program proceeded as follows:

H. W. Scott, Jr., of Nashville, Tennessee—"Surgery in Congenital Heart Disease."

Eugene Bricker of St. Louis—"The Early Diagnosis of Cancer of the Breast."

J. Garrott Allen of Chicago—"The Simplicity of Electrolyte and Fluid Balance."

Katharine Dodd of Little Rock—"Typhoid Fever in Children with Interesting Complications."

Kenneth Blanchard, Johns Hopkins University, Baltimore, Maryland—"Mechanism of Action of Antibiotics."

MEMORIAL SERVICE

April 21, 11:30 A. M., Ballroom

President Drennen, from an appropriately decorated rostrum, presided over the Memorial Service honoring members who passed away during the year.

The invocation was given by the Rev. Marion A. Boggs, Second Presbyterian Church, Little Rock.

A trio sang, "O Love That Will Not Let Me Go" by Harker.

Reverend Boggs read from the Scriptures and gave the Memorial Address.

The trio sang "For O'er the Stars"—Abt.

President Drennen read the names of the departed:

IN MEMORIAM

Charles A. Archer, DeQueen, August 29, 1952
Buford L. Bailey, Star City, August, 1952

Edward Rush Barrett, Jonesboro, December 31, 1952
Mitchell Blaine, Mammoth Spring, May 21, 1952
George E. Cannon, Hope, November 17, 1952
Oscar Thurman Cohen, Jonesboro, November 13, 1952
Henry E. Cockerham, Portland, November 29, 1952
Theo Freedman, Little Rock, February 7, 1953
George Harrod, Conway, April 11, 1952
Lyle L. Hassell, Blytheville, March 2, 1952
Charles S. Holt, Fort Smith, June 7, 1952
Ernest J. Horner, Jonesboro, October 5, 1952
Jonathan Hoyt, Crossett, July 23, 1952
Robert L. Hutcherson, Delaplaine, April 26, 1951
K. K. Kimberlin, Tuckerman, January 2, 1953
P. W. Lutterloh, Jonesboro, May 15, 1952
Henry L. Montgomery, Gravelly, May 18, 1952
Everett C. Moulton, Fort Smith, July 18, 1952
Paul H. Muse, Junction City, July 23, 1952
William V. Newman, Little Rock, August 15, 1952
Samuel N. Robertson, Sulphur Rock, October 12, 1952
Charles E. Roe, Viola, November 18, 1952
Robert L. Smith, Russellville, January 12, 1953
Geyer C. Wood, Grady, May 17, 1952
W. H. Connell, Hot Springs, February 1, 1953
Herwald Cutting, Little Rock, March 10, 1953
Ira Fulton Jones, Fort Smith, March 30, 1953
W. E. Ellington, Paragould, March 30, 1953
Finley Robinson, Blytheville, March 26, 1953
Augustus M. Tullos, Trumann, July 23, 1952

The trio sang "O Eyes That Are Weary"—Harker.

The service was concluded with a benediction.

SYMPOSIA

Tuesday, April 21, 1:30-4:00 P. M.

SURGERY

The Surgery Section held a symposium in the Coach Room Tuesday afternoon with S. W. Hawkins presiding. Participating in the discussion were:

H. W. Scott, Vanderbilt University, Nashville;
Eugene Bricker, Washington University School of Medicine, St. Louis;
J. Garrott Allen, University of Chicago, Chicago.

PEDIATRICS

Eugene Crawley presided at a symposium on Pediatrics during which there were discussions by:

Katharine Dodd, University of Arkansas;
John S. McKinney, El Dorado;
Albert Hand, Memphis.

EYE, EAR, NOSE AND THROAT PROGRAM

Tuesday, April 21

The E.E.N.T. group met all day beginning at 9:00 A. M., in the Colonial Room with Lewis Henry presiding. The program proceeded as follows:

Lewis Henry, Fort Smith—Chairman's Address.
Max Baldridge, Texarkana—Presenting a movie on "Ocular Biomicroscopy."
Alston Callahan, Birmingham, Alabama—"Management of Blunt and Penetrating Injuries of the Eye."

12:30—Luncheon, with round-table discussion and business session until 2:00 P. M., Colonial Room.

John W. Smith, Little Rock—"A New Partnership."
George E. Shambaugh, Jr.—"Chronic Otitis Media" and a movie on Atresia of the External Canal.

Tuesday Evening, April 21

The Annual Dinner and Dance was held in the Ballroom with 450 members, wives, and guests in attendance. The principal speaker at the banquet was United States Senator John L. McLellan. R. B. Robins, in behalf of the members of the Society, presented to W. R. Brooksher a parchment scroll signed by many members honoring him for his nineteen years of service as Secretary.

The dance following the dinner, unusually well attended, ended at 1:00 A. M.

THIRD GENERAL SESSION

Wednesday Morning, April 22

Beginning at 9:30 A. M. in the Ballroom, Kenneth Thompson presided at a symposium on "What's New." Speakers in their respective fields were as follows:

Surgery: James Growdon, Little Rock.
Internal Medicine: Charles Thompson, Texarkana.
Obstetrics and Gynecology: John Walter Jones, Texarkana.
Pediatrics: J. O. Cooper, El Dorado.
Dermatology: Raymond P. Hughes, Texarkana.

FINAL SESSION, HOUSE OF DELEGATES

Wednesday, April 22, 1953, 1:30 P. M.
Ballroom, Hotel Marion

The House of Delegates was called to order by Speaker Verser. The following Delegates and members seated as Delegates by action of the House were present:

ARKANSAS, R. H. Whitehead, Jr.; BAXTER, B. N. Saltzman; BENTON, Cal D. Gunter; BOONE, D. L. Owens; BRADLEY, G. F. Wynne; CARROLL, D. K. McCurry; CHICOT, H. W. Thomas; CLEVELAND, J. H. Scroggins; CRAIGHEAD-POINSETT, L. H. McDaniel, J. H. McCurry; CRAWFORD, S. D. Kirkland; CRITTENDEN, Gilbert D. Day, III; CROSS, Thomas Wilson; DESHA, H. T. Smith; FRANKLIN, C. C. Long; GARLAND, H. King Wade, Jr., E. Smith;

GRANT, Miles F. Kelly; HOT SPRING, Randolph Ellis; HOWARD-PIKE, O. J. T. Johnston; JEFFERSON, W. J. Wilkins, Jr.; JOHNSON, Guy P. Shrigley; LAWRENCE, E. J. Cruse; LINCOLN, C. W. Dixon; LOGAN, James L. Smith; MADISON, Roger Edmondson; MILLER, Harry Murry; MISSISSIPPI, W. W. Workman; NEVADA, A. S. Buchanan; OUACHITA, R. B. Robins; PHILLIPS, W. B. Connelly; POLK, Pierre Redman; POPE-YELL, J. Arnold Henry, Lewis A. Webb; PULASKI, R. E. McLochlin, Ed Gray, R. J. Calcote, John Roberts, Joseph Buchman, Samuel Thompson, Daniel Autry, Andrew Pringos, T. Duel Brown; SEARCY, H. J. Hall; SEBASTIAN, W. R. Brooksher; SEVIER, M. L. Norwood; ST. FRANCIS, J. Max Roy; UNION, J. M. Sheppard, J. B. Wharton, Sr.; WASHINGTON, Fred Ogden, Vincent Lesh; WHITE, S. J. Allbright.

Sam Allbright presented the report of the Nominating Committee:

FOR PRESIDENT-ELECT:
W. R. Brooksher, Fort Smith;
H. T. Smith, McGehee.

FOR FIRST VICE-PRESIDENT:
John Wilson, Magnolia.

FOR SECOND VICE-PRESIDENT:
Thomas Wilson, Wynne.

FOR THIRD VICE-PRESIDENT:
John P. Price, Monticello.

FOR TREASURER:
Daniel H. Autry, Little Rock.

FOR SECRETARY:
J. J. Monfort, Batesville.

FOR SPEAKER OF THE HOUSE OF DELEGATES:
Joe Verser, Harrisburg.

FOR VICE-SPEAKER OF THE HOUSE OF DELEGATES:
T. Duel Brown, Little Rock.

FOR COUNCILORS AND VICE-COUNCILORS:

First District: Councilor, L. H. McDaniel, Tyronza; Vice-Councilor, Wayne Workman, Blytheville.

Second District: Councilor, Hugh Edwards, Searcy; Vice-Councilor, Charles Archer, Jr., Conway. (One-year terms.)

Third District: Councilor, J. Max Roy, Forrest City; Vice-Councilor, J. P. Williams, Jr., Brinkley.

Fifth District: Councilor, D. E. White, El Dorado; Vice-Councilor, George Burton, El Dorado.

Seventh District: Councilor, H. King Wade, Jr., Hot Springs; Vice-Councilor, Randolph Ellis, Malvern.

Ninth District: Councilor, Fount Richardson, Fayetteville; Vice-Councilor, Lee A. Dean, Rogers.

Upon motion by Dixon and Murry all nominees other than those for President-Elect were elected by acclamation.

H. T. Smith then announced that he wished to withdraw as a nominee for President-Elect and moved (second by E. Smith) the House elect W. R. Brooksher by unanimous vote. Motion carried and Brooksher was elected unanimously.

Earle Hunt moved, seconded by Kolb, that W. R. Brooksher be elected Secretary Emeritus for life. Motion carried and Brooksher was unanimously elected Secretary Emeritus for life.

The report of Reference Committee Number One was read by Chairman H. W. Thomas:

REPORT OF REFERENCE COMMITTEE NUMBER ONE

H. W. Thomas, Dermott, Chairman; Ross Fowler, Harrison; Edgar J. Easley, Little Rock

Reference Committee Number One met during the Annual Session at the Hotel Marion on April 21, 1953, and considered the various committee reports, which have been submitted to it. The Committee reports as follows:

I. It recommends approval of the following committee reports as printed in the March 1953 issue of the Journal of the Arkansas Medical Society:

(1) The Public Relations Committee
(2) The Arkansas Cancer Commission.
(3) The Report of the Executive Secretary
(4) The Committee on the Improvement of Nursing Service
(5) The Committee on Liaison with Arkansas State Board of Health
(6) The Budget Committee
(7) The Report of the Advisor to the Student A.M.A. from the State Society
(8) The Committee on Cancer Control
(9) The Report of the State Medical Board
(10) The Committee on the Veterans Administration
(11) The Committee on the 1953 Annual Session
(12) The Committee on Tuberculosis
(13) The Report of the Advisor to the Practical Nurses Association
(14) The Committee on Civilian Defense and Disaster Relief
(15) The Report of the Council
(16) The Committee on Revision of the Constitution

II. The Reference Committee calls attention to the typographical errors in the following reports as printed in the March issue of the Journal and recommends approval of the committee reports as corrected:

(1) Report of the Committee on the Arkansas State Board of Health—This report has three lines of type in the paragraph dealing with activities of the Industrial Hygiene Division, which were transposed onto the following page in the paragraph dealing with investigation of various

products. Recommend approval of this report as printed, allowing for this correction.

(2) Report of Committee on Industrial Health—Typographical error in paragraph 2, which should read "sewage disposal is adequate" instead of "sewage is adequate."

III. The Reference Committee recommends approval of the report of the Legislative Committee. It would like to have Dr. Joe Shuffield, chairman of this committee, report to the House of Delegates a little more in detail about the so-called "services rendered" sales tax proposal, which was defeated, and about the "Norwood" student loan fund bill which was passed by the last session of the Legislature.

Reference Committee Number One calls attention to the fact that little or nothing of controversial nature was contained in the committee reports submitted to it.

Joe Shuffield explained the history of the establishment of the Student Loan Fund made possible by an appropriation of the recent Legislature. Shuffield gave M. L. Norwood of Lockesburg full credit for conceiving the idea and suggested that the Society recommend that the fund be named the "Norwood Student Loan Fund." Shuffield also briefly reviewed measures of interest to medicine which had come before the Legislature.

Upon motion of McDaniel and Autry, the House adopted the report of Reference Committee Number One.

The report of Reference Committee Number Two was read by Chairman Edwin F. Gray:

REPORT OF REFERENCE COMMITTEE NUMBER TWO

Edwin Gray, Little Rock, Chairman; Edwin V. Dildy, Nashville; Ben N. Saltzman, Mountain Home

Reference Committee Number Two wishes to submit the following report:

(1) Committee on Rural Health—This committee is to be commended for its activity during the year. It is worthy of mention that the Arkansas Rural Health Conference had a greater attendance than any similar conference in the United States.

(2) Representative to Arkansas State Dental Association—This committee report is accepted without comment.

(3) Committee on Medical Education—This report is accepted. No recommendations are indicated.

(4) Committee on Child Welfare—This report is accepted. It is suggested that the Society adopt the recommendations of this report.

(5) Representative to Arkansas Pharmaceutical Association—This report is accepted. No action is necessary.

(6) Committee on Liaison with Arkansas Medical and Hospital Service, Inc.—This report is accepted with no action indicated.

(7) Professional Relations Committee—This report is accepted. No action is necessary.

(8) Committee on Hospital Relations—This report is accepted. There is some conflict of duties of this committee and the committee for the Improvement of Nursing Service, and it is suggested that the duties of these committees be clarified.

(9) State Advisory Committee to Selective Service—This report is accepted and the committee commended for its service.

(10) Committee on Tuberculosis—This report is accepted.

(11) Committee on Maternal Welfare—This report is accepted. No action is required.

(12) Treasurer's Report—This report is accepted.

(13) Committee on Post-Graduate Education—This report is accepted. The work of this committee is commended and it is urged that the recommendation of this committee be adopted.

(14) Committee on A.M.E.F.—No report was received from this committee.

Upon motion of Richardson and Murry, the House voted to adopt the report of Reference Committee Number Two.

Louis K. Hundley, Chairman, read a supplementary report of the Council as follows:

The Council met on Sunday evening, April 19th, at 9 o'clock, and transacted the following business:

I. Approved the action of the Executive Committee in sending Dr. W. R. Brooksher and Mr. Paul Schaefer to Washington to interview Arkansas Congressmen concerning the operation of the Veterans Administration Hospitals.

II. Approved the action of the Executive Committee in appointing a special committee to formulate a plan of distribution of gamma globulin in Arkansas.

III. Heard and accepted the report of the Special Committee to study the Medical Society's contract with the Veterans Administration. Special Committee recommended that part "A" of the contract be continued in effect but that notice be given of termination of part "B" within thirty (30) days. Part "B" covers medical and surgical care of veterans in private hospitals.

IV. Nominated Dr. Sanford Monroe of Pine Bluff to serve a six-year term on the Board of Directors of Blue Cross-Blue Shield.

V. Agreed to the request of the Workman's Compensation Commission that the Society set up a state-wide Arbitration Committee to settle problems between doctors and insurance companies. The matter was referred to the Industrial Health Committee for implementation.

VI. Upon hearing the report of the State Health Officer on plans submitted by the Society's special committee on the distribution of Gamma Globulin, the Council commended the committee for its work, approved the plan submitted and voted to refer it to the House of Delegates for final action. It was also recommended that the plan be submitted to the section on Pediatrics and to the Board of the Arkansas Academy of General Practice for approval.

VII. Heard a request of the State Health Officer that the Society assist in setting up standards for laboratories to perform the pre-marital blood tests required by recently enacted legislation. Council decided to assist the State Health Officer as requested and referred the problem to the Committee on Liaison with the State Board of Health and directed that that committee must include a pathologist in its membership.

VIII. Decided to refer the several resolutions before it to a special committee on resolutions.

IX. Heard a request of the Dean of the Medical School that the Society study methods and policies for operating the new Medical Center. The Council voted to assist the Dean in this project and referred the matter to the Committee on Medical Education.

X. Voted to telegraph regrets to Dr. J. O. Rush, Councilor from the Third District, unable to attend this Annual Session on account of illness.

The Council met at 12:15 p. m., Monday, April 20th, and transacted the following business:

I. Heard Mr. Oliver Field of the Bureau of Investigation of the American Medical Association, who spoke on the purposes and functioning of the Bureau of Investigation and who called the attention of the Council to certain undesirable medical situations in Arkansas.

I. The Council met on Tuesday, April 21st, and nominated Dr. Peter Thomas and Dr. W. G. Cooper, whose names will be presented to the Governor for his selection to fill a vacancy on the State Cancer Commission.

II. Authorized Dr. Louis Hundley to attend the Conference on Physicians and Schools in Highland Park, Illinois, as a consultant.

III. Authorized expense for H. W. Thomas to attend the same meeting as a Delegate of the Society.

IV. Authorized the Society attorneys to take action to remedy the situation discussed on Monday by Mr. Oliver Field of the Bureau of Investigation.

V. Heard Mrs. Catharine Hockaday, President of the Arkansas Nurses Association, who spoke on a projected study of nursing resources in Arkansas. Dr. Fred Wm. Harris, the Society's Advisor to the State Practical Nurses Association, requested financial support for that organization's National Conference which is to be held in Little Rock. The Council referred the request to the Budget Committee for its recommendation.

VI. The Council approved the budget submitted by the Budget Committee which had previously been published in the March issue of the Journal of the Arkansas Medical Society.

VII. Dr. L. H. McDaniel of Tyronza spoke, suggesting to the Council that there was a good possibility of Dr. R. B. Robins of Camden being elected President of the American Medical Association. He asked that a special committee, with W. R. Brooksher as chairman, be appointed to develop the movement already begun outside of Arkansas. Chairman Hundley appointed McDaniel and Joe Shuffield to serve with Brooksher.

I. The Council met on Wednesday, 12:15 p. m., and approved the following for Life and Affiliate Membership subject to their eligibility requirements being approved:

Life Members

W. P. Cooksey, Magnolia
J. O. Cotton, Leslie
E. M. Gray, Mountain Home
J. F. Gulledge, Siloam Springs
W. E. Hamil, Pocahontas
P. L. Hathcock, Fayetteville
A. R. Hederick, Booneville
C. A. Henry, State Sanatorium
G. A. Hughes, Siloam Springs
T. S. Jordan, Magnolia
H. M. Kitchens, Waldo
L. J. Kosminsky, Texarkana
George M. Love, Rogers
D. A. Mohler, Brinkley
G. E. Mullins, Emerson
A. L. Peacock, Gentry
S. A. Southall, North Little Rock
S. D. Weil, Hot Springs
W. L. Wozencraft, Fayetteville

Affiliate Members

Charles G. Allen, Strong
Shelby Atkinson, North Little Rock
Gibbs Biscoe, Dumas
T. E. Burgess, Little Rock
O. D. Butterick, Elaine
C. T. Cull, Little Rock
Duell Gann, Little Rock
J. M. Gowdy, Greenbrier
J. K. Grace, Russellville
Henry T. Gray, Charlottesville, Va.
A. A. Hughes, Little Rock
Jack M. Irvin, Sheridan
Ralph Kramer, Fort Smith
Wm. L. Jefferies, Hopkins, Minn.
J. E. Little, Fort Smith
William R. Meredith, Albuquerque, N. M.
J. E. Mobley, Millington, Tenn.
J. M. McCants, Crossett
C. H. McKnight, Brinkley
J. L. Parker, Snyder
Hugh A. Pennington, Paragould
James O. Porter, Morrilton

II. Referred a letter from the Pulaski County Medical Society, concerning admittance charges at the University Hospital, to the Committee on Medical Education.

III. Adopted resolution as follows:

"WHEREAS, the State of Arkansas is a recognized leader in the practical nursing field, being one among the six states in the Union having a Mandatory Licensing Law, and,

"WHEREAS, the training program for Licensed Practical Nurses, sponsored by the Arkansas State Practical Nurses Association and administered by the State Department of Education with funds contributed by the W. K. Kellogg Foundation is a model used by other states attempting to emulate the progress made by Practical Nurses in Arkansas, and,

"WHEREAS, approximately 60 per cent of the Licensed Practical Nurses in Arkansas are availing themselves of the educational program above mentioned, in order to improve themselves and to raise the standards of practical nursing, and to better fit themselves for a place on the Health-Team, now, therefore,

"BE IT RESOLVED, that the Arkansas Medical Society does go on record as commending all practical nurses for improving themselves in their calling, and raising the standards of practical nursing, and better fitting themselves for a place on the Health-Team, and that we, as individual physicians, assist them to continue their splendid program."

IV. Approved the report of the Resolutions Committee with the exception that the resolution concerning using prisoners convicted of felonies as subjects of medical experiments be amended to state that no reward of any kind be offered or given prisoners so participating.

A. Voted the following resolution:

"RESOLVED, that the Arkansas Medical Society extends its deep appreciation and heartfelt thanks to the Pulaski County Medical Society, and the individual members thereof, for the cordial welcome, the extension of unbounded hospitality and good will, and the kindly feelings shown each member of this Society who have been privileged to attend our recent sessions; to the Committee on Arrangements, which has made this meeting an outstanding one; to the Hotel Marion and the individual members of its managerial staff who have served us efficiently and well; to the newspapers, radio and television stations for their

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- therapy x-ray apparatus
- x-ray department planning
- x-ray maintenance service
- x-ray films, solutions, sundries
- x-ray accessories and supplies
- x-ray darkroom layout
- x-ray technical service

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these facilities.

Wm. Stover Co. INC.
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WM. T. STOVER, President

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coverage of our meeting; and to all those citizens of Little Rock who have contributed to our entertainment and who assisted in making the present meeting one of great enjoyment."

V. Moved to set aside up to $250.00 to assist the State Practical Nurse Association with their coming National Convention.

VI. Voted increases in salary for the Executive Secretary and each of the stenographic assistants at the state headquarters.

VII. Voted $300.00 to Dr. Joe Shuffield for his expenses in connection with his successful legislative activities.

VIII. Moved to recommend that the Student Loan Fund established by the State Legislature be named the Norwood Loan Fund.

Upon motion of Hundley and Lesh, the House adopted the supplementary report of the Council.

Mr. Schaefer read the following names of nominees to the State Medical Board selected by members from their respective Congressional Districts:

Second Congressional District: M. L. Harris, Newport; Claude Barnett, Heber Springs; Wesley Ketz, Batesville.

Third Congressional District: H. J. Hall, Clinton; Ben Saltzman, Mountain Home; Jeff Baggett, Prairie Grove.

Fourth Congressional District: Garland Murphy, Jr., El Dorado; G. F. McLeod, Magnolia; James H. Moseley, Hampton.

Fifth Congressional District: Wm. A. Snodgrass, Jr., Little Rock; Keller Lieblong, Conway; J. Arnold Henry, Russellville.

Sixth Congressional District: Frank Burton, Hot Springs; H. W. Thomas, Dermott; Swan Moss, McGehee.

Upon motion (Workman, McCurry) the House approved the list of nominees.

The House adjourned sine die at 3:00 P. M.

FINAL GENERAL SESSION

April 22, 1953, 3:00 P. M.

Ballroom

President Drennen called the meeting to order and presented the Past Presidents seated on the rostrum.

President Drennen addressed the Society, thanking them for their help in carrying out the program of the Society during his term of office. At the request of President Drennen, Fount Richardson and L. H. McDaniel escorted President-Elect R. C. Dickinson to the platform, where Dickinson took the oath of office as administered by Drennen.

President Dickinson thanked the members for honoring him with the office of President and briefly outlined his program for the year, emphasizing that he needed the help of everyone.

J. M. Kolb and Fount Richardson escorted President-Elect Brooksher to the platform, where he was presented to the Society in his new capacity. Dr. Brooksher thanked the assembly for the honors bestowed on him and promised his continued support of the interests of medicine.

A. S. Koenig, on behalf of the Sebastian County Medical Society, invited the Society to hold its 1954 meeting in Fort Smith. Upon motion by Kolb and Dixon, the invitation was accepted.

J. J. Monfort, seconded by Koenig, moved that the 1954 Annual Session be held on Monday, Tuesday, and Wednesday of the third week in April and the House of Delegates so voted.

The Society adjourned its 77th Annual Session at 4:00 P. M.

COUNCIL MEETING

The new council met briefly for organization and elected Louis K. Hundley chairman. W. R. Brooksher was elected Editor of the Journal.

ATTENDANCE

Physicians	470
Exhibitors	55
Visitors	77
Medical students	61
Grand total	663

OFFICERS OF THE ARKANSAS MEDICAL SOCIETY, 1953-1954

President.....R. C. Dickinson, Horatio
President-Elect.....W. R. Brooksher, Fort Smith
First Vice-President.....John Wilson, Magnolia
Second Vice-President.....Thomas Wilson, Wynne
Third Vice-President.....John P. Price, Monticello
Secretary.....J. J. Monfort, Batesville
Treasurer.....Daniel H. Autry, Little Rock
Delegate to A.M.A.....W. R. Brooksher, Fort Smith
Alternate Delegate.....Earle Hunt, Clarksville
Speaker of the House of Delegates....Joe Verser, Harrisburg
Vice-Speaker.....T. Duel Brown, Little Rock

EXECUTIVE COMMITTEE OF THE COUNCIL

Chairman.....Louis K. Hundley, Pine Bluff
President.....R. C. Dickinson, Horatio
President-Elect.....W. R. Brooksher, Fort Smith
Secretary.....J. J. Monfort, Batesville

COUNCILOR MEDICAL DISTRICTS

First District

Councilor.....L. H. McDaniel, Tyronza
Vice-Councilor.....Wayne Workman, Blytheville
Clay, Craighead, Crittenden, Fulton, Greene, Lawrence, Mississippi, Poinsett, Randolph and Sharp counties.

Second District

Councilor.....Hugh R. Edwards, Searcy
Vice-Councilor.....C. A. Archer, Jr., Conway
Cleburne, Conway, Faulkner, Independence, Izard, Jackson, Stone and White counties.

Third District

Councilor.....J. Max Roy, Forrest City
Vice-Councilor.....J. P. Williams, Jr., Brinkley
Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff counties.

Fourth District

Councilor.....L. K. Hundley, Pine Bluff
Vice-Councilor.....H. W. Thomas, Dermott
Ashley, Chicot, Desha, Drew, Jefferson and Lincoln counties.

Fifth District

Councilor.....D. E. White, El Dorado
Vice-Councilor.....George Burton, El Dorado
Bradley, Calhoun, Cleveland, Columbia, Dallas, Ouachita and Union counties.

Sixth District

Councilor.....Harry E. Murry, Texarkana
Vice-Councilor.....E. V. Dildy, Nashville
Hempstead, Howard, Lafayette, Little River, Miller, Nevada, Pike, Polk and Sevier counties.

Seventh District

Councilor.....H. King Wade, Jr., Hot Springs
Vice-Councilor.....Randolph Ellis, Malvern
Clark, Garland, Grant, Hot Spring, Montgomery and Saline counties.

Eighth District

Councilor.....John W. Smith, Little Rock
Vice-Councilor.....Ed Gray, Little Rock
Pulaski County.

Ninth District

Councilor.....Fount Richardson, Fayetteville
Vice-Councilor.....Lee A. Dean, Rogers
Baxter, Benton, Boone, Carroll, Madison, Marion, Newton, Searcy, Van Buren and Washington counties.

Tenth District

Councilor.....J. M. Kolb, Clarksville
Vice-Councilor.....Roy I. Millard, Russellville
Crawford, Franklin, Johnson, Logan, Perry, Pope, Scott, Sebastian and Yell counties.

COMMITTEES FOR 1953-1954

President Dickinson announced his committee appointments as follows:

Committee on Annual Session

Fount Richardson, Chairman.....Fayetteville
T. Duel Brown.....Little Rock
John Wilson.....Magnolia

Committee on Public Relations

Dale Alford, Chairman.....Little Rock
M. H. Harris.....Newport
Lewis Hyatt.....Monticello
L. E. Drewery.....Camden
W. T. Holman, Jr.....Van Buren

Committee on Hospital Relations

A. S. Koenig, Chairman.....Fort Smith
Willis Brown.....Little Rock
J. W. Branch.....Hope
Walter Wilkins, Jr.....Pine Bluff
J. Max Roy.....Forrest City

Committee on Rural Health

B. N. Saltzman, Chairman.....Mountain Home
C. R. Henry.....Little Rock
H. H. Atkinson.....Fordyce
J. D. Huskins.....Siloam Springs
Robert Hyatt.....Monticello
W. O. Young.....Russellville
Norman Peacock.....Russellville
Elvin Shuffield.....Little Rock
J. H. Hellums.....Dumas
J. B. Kirkley.....Jonesboro

Committee on Tuberculosis

J. D. Riley, Chairman.....State Sanatorium
Leeman King.....Hot Springs
L. K. Williams.....Mena
A. V. Adams.....Yellville
L. D. Massey.....Osceola

Committee on Liaison with Arkansas State Board of Health

O. G. Hurst, Chairman.....Prescott
Robert A. Dale.....Star City
E. J. Munn.....El Dorado
John Dorman.....Springdale
Thomas G. Johnston.....Little Rock
A. S. Koenig.....Fort Smith

Committee on Industrial Health

H. E. Mobley, Chairman.....Morrilton
A. D. Cathey.....El Dorado
John D. Olson.....Fort Smith
D. W. Chamblin.....Nashville
Charles Taylor.....Batesville
Noble Daniels.....Texarkana

Committee on Veterans Administration

W. J. Butt, Chairman.....Fayetteville
W. R. Scarborough.....Clarksville
James T. Rhine.....Pine Bluff
Miles Kelly.....Sheridan
W. F. Shepherd.....Jonesboro

Committee on Liaison with Arkansas Medical and Hospital Service, Inc.
(Blue Cross-Blue Shield)

Ellis Gardner, Chairman.....Russellville
L. J. Harrell.....Prescott
Charles P. Yarborough.....Texarkana
J. G. Gladden.....Harrison
John McCullough Smith.....Little Rock

Committee on Medical Education

H. W. Thomas, Chairman.....Dermott
Jack Kennedy.....Arkadelphia
Fred Ogden.....Fayetteville
Roger Dickinson.....DeQueen
C. C. Long.....Ozark
J. M. Kolb.....Clarksville
John W. Smith.....Little Rock

Committee on Maternal Welfare

Haynes Jackson, Chairman.....Hot Springs
E. T. Ellison.....Texarkana
Ruth Lesh.....Fayetteville
Gilbert D. Jay, III.....West Memphis
John L. Ruff.....Magnolia

Committee on Child Welfare

Wm. Snodgrass, Chairman.....Little Rock
A. A. Little.....Texarkana
Joe L. Rosenzweig.....Hot Springs
H. M. White.....Rogers
Karr Shannon, Jr.....Melbourne

Committee on Post-Graduate Education

E. V. Dildy, Chairman.....Nashville
Shelby Hicks.....Lavaca
Jim McKenzie.....Hope
Robert MacDonald.....Eudora
W. J. Jones.....Glenwood

Committee on Medical Legislation

Joe Shuffield, Chairman.....Little Rock
John Watkins.....Little Rock
Elvin Shuffield.....Little Rock
M. L. Norwood.....Lockesburg
Joe Rushton.....Magnolia
Louis Whittaker.....Fort Smith

Committee on Civilian Defense and Disaster Relief

Brooks Teeter, Chairman.....Russellville
Jud Martindale.....Hope
W. L. Walker.....Brinkley

Jim Pickins ..... Rogers
G. K. Patton ..... Van Buren

Committee on Cancer Control

C. A. Archer, Jr., Chairman ..... Conway
Edward M. Cooper ..... Jonesboro
Ed Gray ..... Little Rock
W. H. Handley ..... El Dorado
W. E. Jennings ..... Rogers
John W. Jones ..... Texarkana
Fred H. Krock ..... Fort Smith

Committee on A.M.E.F.

E. H. Wilkes, Chairman ..... Little Rock
S. A. Drennen ..... Stuttgart

Advisor to the Student A.M.A. from the State Society

L. H. McDaniel ..... Tyronza

Advisor to the Arkansas Practical Nurses Association

Fred Wm. Harris ..... Little Rock

Arkansas Committee for the Improvement of Nursing Service

W. L. Walker ..... Brinkley

Representative to the Arkansas State Dental Association

John Greutter ..... Little Rock

Representative to the Arkansas Pharmaceutical Association

M. D. McClain ..... Little Rock

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Twenty-Ninth Annual Session
WOMAN'S AUXILIARY TO THE ARKANSAS MEDICAL SOCIETY

MRS. A. A. LITTLE
Texarkana
President, Woman's Auxiliary to the Arkansas Medical Society, 1952-1953

The Twenty-ninth Annual Meeting of the Woman's Auxiliary to the Arkansas Medical Society was held April 20-21 in Little Rock at the Hotel Marion. Two hundred members registered during the two days.

Following a pre-convention Board meeting, the first general session was opened at 10 o'clock with Mrs. Hoyt Choate, President of the Pulaski County Auxiliary, presiding. Mrs. Erner Jones of Little Rock gave the address of welcome and Mrs. L. Gardner of Russellville responded for the visiting members. Taking charge of the meeting, Mrs. A. A. Little, Texarkana, President of the Woman's Auxiliary to the Arkansas Medical Society, introduced the special guests—Mrs. Ralph Eusden, Long Beach, California, President of the Wom-

an's Auxiliary to the American Medical Association; Mrs. R. L. Stover, Miami, Florida, President of the Woman's Auxiliary to the Southern Medical Association; and Mrs. Mason G. Lawson, Little Rock, Treasurer of the Woman's Auxiliary to the American Medical Association. Reports of officers and committee chairmen were read. It was made official by the general body that Mrs. C. W. Garrison of Little Rock will be carried as an Honorary President of the Woman's Auxiliary to the Arkansas Medical Society and that the Auxiliary will pay her state and national dues.

Mrs. Little presided at Monday's luncheon, held in the Continental Room of the hotel. Guest speakers for the day were Mrs. Ralph Eusden and Dr. R. C. Dickinson. Mrs. George B. Fletcher, Hot Springs, Poet-Laureate of the Auxiliary, read several poems which had been written especially for this meeting. In the afternoon a tea was given for all Auxiliary members in the home of Mrs. Hoyt Allen.

Tuesday morning, Mrs. Curtis Jones, Sr., of Benton, served as Chairman for the Past-President's Breakfast. The second general session was called to order at 9:00 o'clock by Mrs. Little. Dr. S. A. Drennen, President of the Arkansas Medical Society, brought greetings from the Society. Reports of the District Councilwomen were given and Mrs. C. G. Clark, Arkadelphia, read a combined and condensed report for the County Presidents. Following election, the new officers were installed by Mrs. R. C. Dickinson of Horatio. At 11:00 o'clock the meeting was adjourned and the members attended a joint Memorial Session with the Medical Society.

Mrs. Hoyt Choate presided at Tuesday's luncheon, held in the Little Rock Country Club. Invocation was given by Mrs. C. E. Kitchens, Chaplain. Introductions were made of the state officers, wives of the officers of the state Medical Society, and honored guests. The guest speaker was Mrs. Richard Stover. A fashion show was presented by Town and Country of Little Rock, with members of the Pulaski County Auxiliary as models. The Auxiliary Convention officially closed with this luncheon, but the members were entertained Tuesday night by the Medical Society who were hosts for a dinner and dance in the Hotel Marion Ballroom. The speaker for the evening was United States Senator John L. McClellan.

Mrs. T. Duel Brown,
Recording Secretary.

OFFICERS FOR 1953-1954

WOMAN'S AUXILIARY TO THE ARKANSAS MEDICAL SOCIETY

President
Mrs. A. A. Little, 1908 Locust, Texarkana

President-Elect
Mrs. Hoyt Choate, 1100 Kavanaugh, Little Rock
(Chairman of Organization and Membership)

First Vice-President
Mrs. Lycurgus Gardner, Russellville
(Chairman of Public Relations)

Second Vice-President
Mrs. Howard Stern, 1800 West 25th, Pine Bluff
(Chairman of Health Education)

Third Vice-President
Mrs. J. W. Kennedy, 1543 12th St., Arkadelphia
(Chairman of Today's Health)

Fourth Vice-President
Mrs. Charles R. Henry, 4 Armistead, Little Rock
(Chairman of Loan Funds)

Treasurer
Mrs. V. T. Webb, 2823 West 14th St., Little Rock

Recording Secretary
Mrs. T. Duel Brown, 2120 Schiller, Little Rock

Corresponding Secretary
Mrs. R. R. Kirkpatrick, 2319 Pecan St., Texarkana

Publicity Secretary
Mrs. H. King Wade, Jr., 118 Trivesta Right, Hot Springs

Historian
Mrs. C. W. Garrison, 500 Ridgeway, Little Rock

Parliamentarian
Mrs. Charles W. Dixon, Gould

Poet-Laureate
Mrs. George B. Fletcher, 18 Fern St., Hot Springs

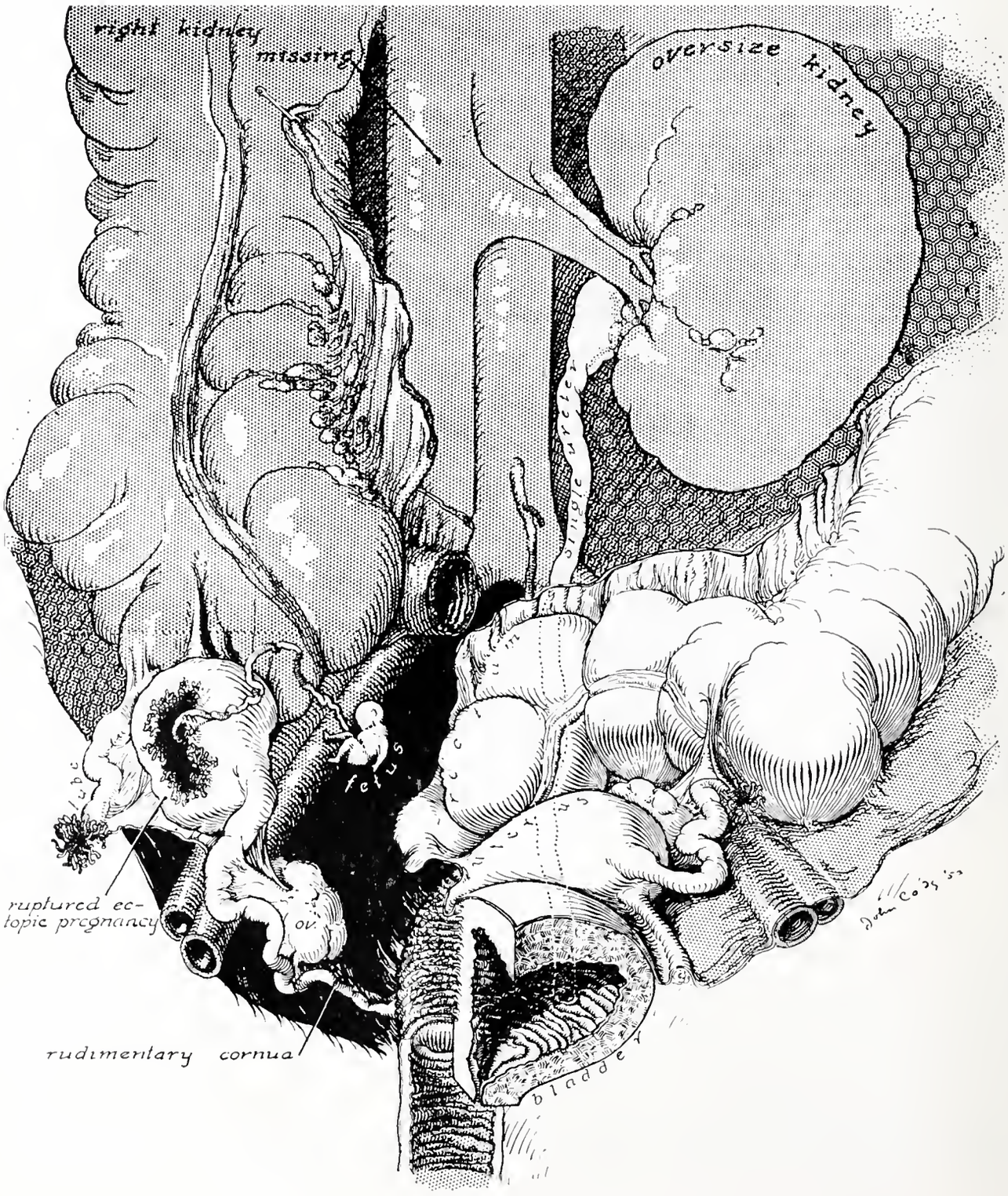
ECTOPIC PREGNANCY (Tubal Abortion) IN A RUDIMENTARY HORN OF UTERUS, ASSOCIATED WITH RENAL AGENESIS

J. J. MONFORT, M. D.
Batesville

Congenital anomalies of the uterus are relatively common. They are frequently associated with other anomalies in the mesonephron of the uterus, the rudimentary horn of which contained an ectopic gestation and agenesis of one kidney.

A review of the literature reveals about 20 similar cases.

Mrs. P. S., 20, gravida 2, entered the North Arkansas Clinic on May 26, 1951, with the following history and findings. The patient had an ap-



pendectomy at the age of 12, and a previous pregnancy at the age of 18 had been normal. The patient's last normal menstrual period was March 5, 1951. The patient was well until early in the morning of the day of admission when she was awakened with generalized abdominal pain. She showed progressive signs of blood loss in the form of faintness, vomiting, fatigue, and dyspnea. Examination revealed a pale, restless girl appearing in shock with cold extremities, pulse 104, and a blood pressure of 100/68. The heart and lungs were normal to auscultation. The abdomen was slightly distended and there was generalized tenderness, more marked over the pelvis. Pelvic examination revealed a fairly normal appearing cervix, and considerable pain was elicited on motion. No adnexal or culdesac mass could be noted. Laboratory studies revealed a mild anemia, leukocytosis, and a normal catherized urine specimen. A preoperative diagnosis of ruptured ectopic pregnancy was made.

After proper preparation including the beginning of a transfusion, the abdomen was opened in the midline and the pelvis was explored. About 1,000 cc. of free blood was found in the abdominal cavity. The uterus and left adnexa appeared to be of normal size and position. The right tube and ovary were found lying beneath the cecum in the right paracolic gutter.

The distal end of the right tube was enlarged and engorged, and presented the finbriated end beneath the cecum. This distal fourth of the tube was apparently the portion in which the gestation of eight weeks rested, and the gestation products and consequent bleeding were expelled from the end of the tube into the cecal area of the abdomen. The tube and broad ligament, although longer than normal, were smaller in diameter in the proximal two-thirds of its attenuation, and both, as a unit, entered the uterus at a level of the upper cervix.

The right tube and ovary were removed, after hemostosis was accomplished, and the tubal abortion products and blood clots removed. The unity of the tube and round ligament near the uterus made dissection difficult, in order to leave the round ligament as intact as possible.

Further exploration revealed an absent right kidney and a greatly enlarged left kidney. Postoperative renal studies confirmed a single ureteral opening in the trigone of the bladder and absence of the right kidney. The patient's postoperative convalescence was uneventful.

This report describes the association of agenesis of the right kidney and congenital anomaly of the right mullerian tract with a pregnancy in the rudimentary uterine horn (or tube).

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A NEW PARTNERSHIP*

JOHN W. SMITH, M. D.
Little Rock

When I was asked to present a paper for this meeting, I debated a long time on just what phase of our work I would discuss. Knowing that you are familiar with all that is new in techniques and drugs, I decided to write this paper on another phase of our profession. It is one that I feel is of vital importance to us and that we need to bring out into the open and examine.

What I am going to say is a departure from the traditional type of medical paper. I assure you that it is with all humility that I say the things that are to follow. However, I believe that many of you are thinking along the same lines and are having the same concerns.

I am going to begin with a self-examination or a reminiscence but I believe it is typical of every one of us.

When we started our medical education, we each were determined to be satisfied with only the best. We spent many years in medical schools, in interning and in residences, fitting ourselves to give to our patients the highest skilled services. The years of training were long and hard. We were well aware of the demands that were to be made upon our lives. The knowledge of a service unselfishly rendered was the satisfaction and reward that we expected from our work.

The years have passed and most of us are a success, if we judge from the number of patients that we see each day, but we are finding ourselves under such heavy pressure that many of us feel that we are not doing as much as we would like for each of our patients. We do not have time to

* Read before the E.E.N.T. Section, Arkansas Medical Society, April 21, 1953.

think through their masked symptoms or to establish the proper doctor-patient relationship which is now recognized to be of the utmost importance. We are concerned, for we know the truth of Dr. Leo H. Bartemeir's statement that "if the physician is hurried, fatigued, or emotionally involved, he loses the best tool to relieve human suffering." It is also hard to find the time and quiet to do the professional reading that is necessary to keep us abreast of the times.

This pressure of work, together with a sense of responsibility for our patients and a realization that we are not doing all that we would like, is what is wearing doctors out. Tiredness breaks us because we set high standards of accomplishment for ourselves and feel that we lack the resources to reach them, and the inner conflict puts a heavy strain on us.

Now the question may be asked, "Why do we allow ourselves to see so many patients a day?" The answer is, when people are suffering they want a doctor **today**, not **next week**, or **two** or **six** weeks from now. Too, we have a responsibility to take care of our patients when they are sick and **need** us.

Some doctors try to overcome this pressure of work with week-end trips to the country—to their farms. There they get away from the 'phone for a few days but only to come back to the same conditions on Monday.

One of our friends tries another way. Over his desk is this motto: "God grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference." He also finds relaxation in taking an interest in those he meets and directing their thinking spiritually. It is a hobby of his to give away these coins—on one side is the Lord's Prayer, and on the other John 3:16: "For God so loved the world that He gave His only Son, that whoever believes in Him should not perish but have eternal life."

Dr. Alexis Carrel said, "Without God men cannot carry the load of this modern day. Men need God desperately. He alone can save them from complete catastrophe."

If we will face our situation honestly we will admit that it is not necessarily the physical work that is wearing us out. It is the outward pressure. Why can't we take it? It is because we are not taking the time to build up our inner strength and calm. Our doctor friend has the answer. We cannot build faith and strength in others without building it in ourselves. It is time for us to say, "Physician, heal thyself," or better still, "Doctor, seek the Master Physician."

I recently learned by experience what this could mean. A beautiful little girl from out in the state was brought in to me. She had aspirated a foreign body which was firmly lodged in the left main bronchus. The doctors in her home town had done everything they could but without success. Then they brought her here. I worked for forty-five minutes to an hour trying to remove this object, but to no avail. After this length of time, I felt that due to the previous bronchoscopy we were treading on dangerous territory by persisting, so I stopped and left the child alone for a day or two. I am not ashamed to say that during these two days I prayed many times, that when I went back in to this child we would be able to obtain our objective. On the next bronchoscopy, the rock remained in the left main bronchus, but on my first attempt at grasping this foreign body it was just as if somebody handed it to me and it came right out. Now you may try to explain this away by saying that the rock was loosened on the other attempts, or that the two days' delay allowed all of the edema to subside, but it was too evident to me that it was not by human power or skill alone but only with the assistance of the Master Physician's hand on mine.

This was so very vivid to me that it has led me to do a lot of thinking along this line, and is probably responsible for this paper. We need to recognize that with all of our skill and know-how that there are cases in which we are limited and in which we need Divine assistance. A partnership with God, as it were.

Now don't misunderstand me. I do not mean that we are to shift **any** of **our** responsibility to God or to look to Him to compensate for any of our shortcomings or mistakes. Neither do I have any patience with the doctor who gives up too easily, saying, "It is in God's hands," or "It is His will." What I mean by a partnership is the one in which we use every scientific knowledge and skill available to us, with God directing.

To further prove our need for such a partnership, we are again recognizing the age-old truth that man is a three-fold entity—body, mind and spirit—and that he cannot be whole unless all parts are sound. In our training, we concentrated on the body; now we are realizing that it is not enough to heal the physical ills, nor can it always be done unless we are concerned about the spiritual and mental condition of a patient and have a deep understanding of him.

The public is realizing the limitations of science, of drugs and surgery, and they are asking for that "something more" in their doctors. I heard a prominent woman say the other day, in describing her visit to a doctor, that she had had no confidence in him until he said, "With God's help, I will do this." Then her attitude toward him changed entirely. I have also heard people say that they did not want certain doctors because of their lack of faith. A cynic cannot be genuinely interested in other people's problems.

There is no doubt that our medical schools will train the next generation of doctors to recognize the three-fold needs of man. In fact, it is already being done. It has been said, "Medical students in the past have spent too much time on the cadaver and not enough on the patient, and educators have been more concerned with the illness per se than they have been with the **people with the illness,** therefore less human than they might be." It has further been said that "on medical and surgical reports the influence of the physician's attitude toward the patient is rarely or never mentioned. It is felt that this would be unscientific. On the other hand, the patient's attitude toward the physician and nurses is carefully recorded, in that he refuses medication or does not seem to cooperate, etc. The doctor's attitude is more important than he realizes or will **permit** himself to realize. The patient's reaction during surgery or medical treatment reflects largely the doctor's attitude. The doctor's trust or mistrust and positive feelings are as important as his medical and operative procedures."

From the beginning of our industrial economy with all its gadgets and conveniences, we thought **industry and man—machines and man**—could just about do everything. Then came the age of science with all its marvels and again we thought **science and man** could do all and keep everything under control. However, with the production of industry at its highest and science having harnessed the atom, we are more insecure than we have ever been and it is being reflected in man's health. We are coming to realize that the only combination that will work is **God and man.**

The doctors of our generation, in our training, were indoctrinated with the prevailing theory of the power of science to cure all, and certainly I would be the last to depreciate the rapid strides and discoveries that have been made in the healing arts, but now we are realizing that the practice of medicine cannot divorce itself from the spiritual aspect of living. Today science and doctors are not enough. We need a new partner, the senior partner, for our firm. God and the doctor, together with science, can be the world's greatest partnership.

I am really sorry for children who missed the horse and buggy era and never had the thrill of seeing a team of horses pulling together. One alone could never have pulled the load, but pulling together it was wonderful what they could do. Neither is there any limit to what we can do when we pull together—God and you—God and I. We can be the greatest team in the world.

As I said in the beginning, I knew that you were all familiar with what is new in drugs and techniques and had my paper been confined to these you would probably have gone out with the remark, "More of the same." If you have been thinking along these lines and have been having these same concerns, I hope that what I have had the **courage** to say will strengthen you. If you have trusted only in your own strength and knowledge, I hope I have given you something to think about.

As doctors, we have the most sacred profession in the world. People not only place their own lives but the lives of their loved ones in our hands. It is too great a responsibility for us to carry alone. We are but human. We must recognize our need of Divine assistance—and so I present to you the new, yet age-old partnership, God and you, the doctor.

★ Editorial ★

OUR PRESIDENT

Richard C. Dickinson, installed as President of the Arkansas Medical Society, April 22nd, was born in Lampasas County, Texas, May 11, 1888, and has lived at Horatio since 1890. He attended public schools at Horatio and the University of Arkansas from 1905 to 1908, graduating from the University of Arkansas School of Medicine in 1917, winning the Buchanan award for his class. He has continuously practiced at Horatio since graduation and is now a member of the Dickinson Clinic at DeQueen in association with his sons, Rodger and Bill. He is married and has six children.

He has been active in civic affairs as a member of the Horatio School Board, past master of the Horatio lodge, F. & A. M., in addition to other activities in his community.

His has been an active life in medical organization, serving in the various county society offices, as a delegate to the state society, as Councilor from the Sixth District from 1944 through 1952, terminating this service with his selection as President-Elect that year. He was an original member of the Blue Cross-Blue Shield organization committee and has since continued to serve as a member of the Board of Directors of Arkansas Medical and Hospital Service, Inc. He has twice served as Chairman of the Advisory Committee to the Woman's Auxiliary to the Arkansas Medical Society. His services have been given on many society committees during these years.

His interest in the University of Arkansas is well accounted for. All of his six children are graduates of the school; there are 23 college degrees in his family; one son is a dentist; two are physicians; one daughter is a medical technologist. His father was an honored early day physician in Sevier County. His enthusiasm for the University of Arkansas and, in particular, for the Medical School, must be most encouraging to those individuals who are charged with the responsibilities of administration of these institutions.

The Society may well anticipate alert and aggressive leadership from "Dick" as an individual who has had most intimate contact with the affairs of the medical society; who possesses an urgent desire to make the medical society an organization of greater worth to the people of Arkansas and to its membership, and who is committed to the zealous support of the University of Arkansas School of Medicine.

"TOO MANY WRONG IDEAS ABOUT DOCTORS"

A significant and praiseworthy contribution toward better understanding between physician and patient is made in an interview of Dr. R. B. Robins, of Camden, by the editors of U. S. NEWS AND WORLD REPORT in its issue of April 3rd. This is most comprehensive in its approach for a better realization of the views of medical men by the public and has been most favorably commented upon by the press since its appearance in this national weekly.

Some of Dr. Robins' answers are quoted herewith for the benefit of those who have not read the article. Careful perusal of the entire interview is recommended to all physicians.

"The general practitioner; his may well be the greatest personal satisfaction of any professional group.

"Figures show that doctors' incomes have increased only 25 per cent while other groups have increased 100 per cent.

"Medical societies have nothing to do with the admission of students into medical schools.

"I have never considered that there really has been a shortage of doctors in the country, over all. There has been a shortage in certain areas. It is mainly a distribution problem.

" * * * The young doctor of today is more inclined to go to rural communities because good roads have made it possible for them to be within short distances of hospital facilities, so that the problem is being gradually solved.

(On fee splitting) "There are always a few rotten apples in every barrel, but that is no reason to condemn the entire medical profession, which is giving the American people the best medical care obtainable anywhere in the world. Medical societies everywhere make every effort, legal and otherwise, to stamp it out wherever it rears its ugly head. Sincere, honest doctors just don't stand for it.

"Words like 'ghost surgery'—those are just scare phrases. I have been all over the country and I haven't seen one example of ghost surgery."

"SPARKS FROM THE SECRETARY"

Convention Notes

The last annual session was certainly one of the biggest and best that we have ever had. Alfred Kahn's Program Committee and the various arrangement committees from Little Rock certainly should have a star in their crown for the fine program that we had. Little Rock's hospitality was of the very best and we all thank them very much. Which reminds me of the fact that one of these conventions is terribly hard on the constitution as regards to the amount of sleep one might get. On Wednesday morning, one well-known lady was overheard, outside the Marion Hotel, turn to her husband and say, "Honey, do I have my dark glasses on?" * * * * The Council's work was terrific this particular convention; I regret very much that the average M.D. has no idea of the number of hours and amount of work that the Council and the various committees has to put in during the convention; or for that matter during the year, so that the rest of the boys can have a good meeting and work as unmolested as possible in the way in which they like to work. If it were not for this amount of work a great deal of annoyance would be the average physicians, which he now escapes. * * * * A memorable note is Fount Richardson's knowledge of Shakespeare and linguistic talents. He quotes Shakespeare at the drop of a hat (or even less) and as far as most people know quotes it accurately. He converses readily in four languages and claims that he can even get along a little in Hindustani! * * * * One of the most amusing sights at the convention was one seen right after the meeting of the nominating committee. A room was not immediately available so I offered the nominating committee the use of my parlor room as I knew that my "Mac" would not be in at that time. Of course after getting the boys settled I retired from the room to wait next door in Lou Hundley's room. As soon as the nominating committee filed out of the door, I heard the door and opened the door to Lou's room and who do you suppose was waiting outside for him also—none other than Euclid Smith (who claimed that he had a good excuse), Fount Richardson (no excuse), and of course yours truly. I will say that the chairman of the nominating committee, Sam Allbright, gave as much misinformation as possible to those concerned. * * * * We believe it worth remarking that for the first time in which the convention was held with the Speaker of the House of Delegates, that Speaker Joe Verser did an excellent job. * * * * We certainly wish to thank Paul Schaefer and Bill Brooksher for their most excellent help in helping the committees to get things arranged and to run the thing in the order in which it was to be expected. * * * * Senator John McClellan's speech may have been a few moment long but it certainly was very much on the up and up and I don't believe that any person there doubted the man's integrity at all. * * * * There was some question in everybody's mind when Bill Brooksher was being escorted to the platform, as our new president-elect, whether they were going to take him up to push him off the platform or not!

OBITUARY

DAVID MONROE SWITZER, age 86, died at Little Rock April 25th. A graduate of the University of Arkansas School of Medicine in 1908, he had practiced in North Little Rock from that time to 1951. He had been a deacon of the Second Baptist Church since 1920. Surviving are his wife and three sons.

H. GIDEON BURGE, age 81, died at Nettleton April 28th of a heart attack. Born in Independence County, he began practice about 1900 at Walker community, White County, and later at Oil Trough, Sulphur Rock and Shelbyville before locating at Nettleton in 1926. He was an honorary member of the Arkansas Medical Society. Surviving are his wife, four sons and two daughters.

JOSEPH G. MITCHELL, age 68, El Dorado, died May 3rd after a long illness. Born in Dubach, Louisiana, he graduated from Tulane University School of Medicine in 1910 and practiced in El Dorado from 1911 to his retirement a few years ago. He specialized in otolaryngology and was a diplomate of the American Board of Otolaryngology. He was a member of the First Baptist Church and a past-president of the Rotary Club. Surviving are his wife, a son and a daughter.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

APPRAISAL OF PROTECTIVE VALUE OF BCG VACCINE

JOSEPH D. ARONSON, M. D., and
CHARLOTTE F. ARONSON, A. B.

Journal of the American Medical Association
May 24, 1952

The logical approach to the development and evaluation of a specific immunizing agent against tuberculosis requires not only an understanding of the fundamentals of immunity but an appreciation of the factors that make such an evaluation difficult. Such factors include variations in the biology of the tubercle bacillus, the susceptibility of the host, the pathogenesis of the disease, the degree of exposure, social and economic factors, and an almost universal decline in the morbidity and mortality from tuberculosis.

At the present time there is almost general acceptance that some degree of increased resistance follows a primary infection. The immunity in tuberculosis is not as complete as the immunity following such a bacterial disease as typhoid or the immunity following certain virus infections and tends to decrease with the disappearance of viable tubercle bacilli.

The impracticability of using viable virulent tubercle bacilli in man to induce resistance and the inconclusive results following the use of nonviable tubercle bacilli has led to widespread investigations of the value of viable, attenuated cultures of tubercle bacilli as immunizing agents. One of the most widely used of such cultures has been the BCG culture of Calmette and Guerin.

The BCG culture originated from a virulent, bovine type tubercle bacillus isolated in 1902. This culture was attenuated by long-continued transplantation on potatoes impregnated with beef bile and glycerine. This attenuated strain has retained the cultural, tinctorial, antigenic, and tuberculogenic properties of the original culture, but has lost the ability to produce progressive tuberculosis in animals as susceptible as the guinea pig or in man.

BCG vaccine was first used in France in 1921. Since then approximately 50 million persons of various ages living in different parts of the world, some under the most adverse and primitive conditions, have received the vaccine. The diversity of opinion regarding its value has been due, in great part, to the lack of adequately controlled investigations and to the difficulty of dissociating the protective role of BCG vaccine from an almost universal decrease in the morbidity and mortality from tuberculosis, antedating the use of BCG vaccine.

In order to appraise as objectively as possible the specific value of BCG vaccine in control of tuberculosis, a joint investigation was undertaken by the Henry Phipps Institute, University of Pennsylvania, and the Branch of Health, Bureau of Indian Affairs, Department of the Interior. This study was initiated in December, 1935, and it was not until February, 1938, that all of the injections of BCG vaccine and saline solution were completed in the different areas.

This investigation was conducted in five different geographical areas and included eight different tribes. These agencies and communities are widely scattered, and the inhabitants live under greatly differing climatic conditions. They vary in their dietary habits and represent different social and cultural patterns. In general, their economic condition is low, housing poor, and homes overcrowded. Excellent cooperation was obtained from the Indians throughout the study.

The initial phase of the study consisted of determining the mortality and morbidity from tuberculosis and the incidence of tuberculous infection in the general population. The incidence of tuberculous infection as determined by the tuberculin test varied little on the different agencies. The mortality rate from tuberculosis on the Indian reservations studied ranged from 200 to 300 per 100,000, while the mortality rate in Alaska ranged from 500 to 600 per 100,000.

The morbidity from tuberculosis was determined by roentgenologic examination of the chest of an unselected sample of the population. Pulmonary lesions compatible with a diagnosis of tuberculosis ranged from 1.1 per cent of those examined roentgenologically on the Pima Agency, Arizona, to 6.9 per cent among those living in

southeastern Alaska. Data compiled by the Tuberculosis Control Unit of the Indian Service indicated a high incidence of tuberculous infection and disease.

The group to be included in the evaluation of BCG vaccine was next selected. School and preschool age children, all of whom were negative to 0.00002 mg. and 0.005 mg. of purified protein derivative (PPD) tuberculin, were placed by an alternate division of cards into one of two groups. These groups were comparable in numbers, age, and sex. One group received a single intracutaneous injection of freshly prepared BCG vaccine and were not revaccinated during the study. The second group received an intracutaneous injection of isotonic sodium chloride solution and served as controls. Neither group was isolated before or after vaccination, and no change was made in their mode of living. Both groups were examined annually by means of X-ray and tuberculin tests for from nine to eleven years.

The mortality from all causes and from tuberculosis was again determined 15 years after the study was initiated. The cause of death was based on roentgenologic and laboratory examinations, clinical records, nurses' notes, and personal interviews with relatives in those few cases in which diagnosis had not been established. In no instance was the death certificate diagnosis accepted without further careful investigation. During the 13 to 15 years of observation a total of 71 vaccinated and 128 controls died from all causes. Among the 1,551 vaccinated persons observed for a total of 21,245.5 person years, 12 died from tuberculosis, a rate of 0.56 per thousand person years of observation. Among the 1,457 controls observed for a total of 19,520.5 person years, 65 died from tuberculosis, rates of 3.32 per thousand person years. Among the vaccinated persons and controls 59 and 63, respectively, died from nontuberculous causes. Of the 12 deaths from tuberculosis among the vaccinated group, six were due to pulmonary tuberculosis, and six to nonpulmonary forms. Of the 65 unvaccinated controls who died from tuberculosis, 32 died from pulmonary tuberculosis, 31 from acute miliary or similar forms of tuberculosis including tuberculous peritonitis, and two from bone and joint tuberculosis. The vast majority who died from generalized tuberculosis had been negative to tuberculin within the year of death or had become positive for the first time within that period.

The observed data over a period of 13 to 15 years support the concept that there is a close but not absolute relationship between resistance to reinfection and hypersensitivity. Hypersensitivity among the vaccinated, of whom 12 died from tuberculosis, ranged from 93.3 per cent one year following vaccination to 90.2 per cent 11 years later. Among the unvaccinated controls, 65 of whom died from tuberculosis, hypersensitivity increased from an incidence of 12.7 per cent one year after the initiation of the study to 41.7 per cent after 11 years.

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PERSONALS AND NEWS ITEMS

R. B. Robins, Camden, addressed the Union County Medical Society April 7th on "Medicine in This Changing World."

M. Fink, Helena, has been elected an honorary member of the Southern Medical Association.

Capt. Joe W. Ledbetter, Jonesboro, has been recalled to active duty with the Army Medical Corps and assigned to Supreme Headquarters, Allied Forces in Europe, Paris.

I. Meschan, Little Rock, addressed the El Dorado Kiwanis Club April 15th.

Wayne G. Pullen has located at Fort Smith.

Gilbert D. Jay, III, West Memphis, has been named a diplomate of the American Board of Surgery.

Joe Shuffield, Little Rock, recently addressed the Pre-Med Club at the University of Arkansas.

G. L. Mallory, England, has been recalled to service by the Air Force Medical Corps.

A. A. Blair, Fort Smith, has been re-elected Arkansas Governor, American College of Physicians.

John G. Watkins and John Laurens, Little Rock, have been recalled to active duty in the Naval Medical Corps.

Contributions have been announced during March to the American Medical Education Found-

ation from the Woman's Auxiliary to the Pulaski County Medical Society.

Frank Kumpuris addressed the Little Rock Business and Professional Women's Club April 20th on self-examination of the breast.

Fred W. Harris, Little Rock, addressed the Benton Business and Professional Women's Club April 20th.

D. W. Goldstein, James R. Thompson and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Booneville April 29th under the sponsorship of the Logan County Medical Society and the Arkansas Division, American Cancer Society.

Gordon P. Oates and Watt Reagan, Little Rock, who are on active duty with the Naval Medical Corps, are stationed at the Marine Recruiting Depot, San Diego.

H. E. Murry, Texarkana, has been elected president of the Tulane Alumni Association in Arkansas.

The Veterans Administration Hospital, North Little Rock, invites inquiries from physicians who may be interested in a residency in psychiatry at regular staff salaries.

Paul L. Mahoney, Little Rock, attended the series of meetings April 21st through May 3rd in New Orleans of the American Laryngological Association, the American Board of Otolaryngology, the American Triological Society, the American Broncho-Esophageal Association and the American Otological Society. On April 28th, he presented a paper, "Grasses and Cedar Twigs as Foreign Bodies in the Bronchi and Lungs of Children" before the American Broncho-Esophageal Association.

Peter O. Thomas, Little Rock, and W. R. Brooksher, Fort Smith, have been appointed members of the Arkansas State Cancer Commission.

Jabez N. Jackson has been elected surgeon of the Newport post, American Legion.

Dr. and Mrs. Fred Hames, Pine Bluff, were hosts to the Arkansas State Radiological Society May 17th.

W. F. Shepherd, Jonesboro, has been recalled to active duty with the Army Medical Corps.

The 1953 Conifer, annual of the Camden High School, has been dedicated to J. B. Jameson.

J. T. Herron, State Health Officer, has been elected an honorary member of the Arkansas State Dental Association.

Dr. and Mrs. Kenneth Thompson, Fort Smith, spent a May vacation in Florida.

Paul L. Mahoney, Little Rock, spent several weeks recently doing special work in rhinoplastic and otoplastic surgery with Samuel Fomon in New York.

R. B. Robins, Camden, addressed the Ingham County Medical Society, at Lansing, Michigan, May 7th, on "The Role of the General Practitioner in the Practice of Medicine."

Hayden C. Nicholson was presented with a silver tray commemorating his services in firmly establishing the University of Arkansas School of Medicine Medical Center by the faculty and administration of the school on April 2nd.

Anderson Nettleship, Little Rock, addressed the American Association of the History of Medicine in Columbus, Ohio, April 10th, on "Early Man's Concepts of Disease."

William G. Reese, Little Rock, attended the American Psychosomatic Society at Atlantic City during April.

B. B. Wells, Little Rock, recently addressed the Oklahoma State Society of Medical Technologists at Tulsa.

The annual session of the Texas Medical Association in Houston was addressed in April by B. B. Wells, "Clinical Pathology of Disseminated Lupus Erythematosis," and by S. W. Ross on "Method for Demonstration of Lupus Erythematosis Cells," both speakers from the University of Arkansas School of Medicine.

John Howard, Little Rock, discussed "Conflict, Religion and Psychiatry" at the Little Rock Unitarian Group April 19th.

Dale Alford, Little Rock, recently addressed the "Y" Young Fellowship on "Man's Inhumanity."

Anderson Nettleship, Little Rock, recently addressed the Federation of Societies for Experimental Biology and Medicine in Chicago on "Pathogenesis of Poliomyelitis in Cases of Acute Anterior Poliomyelitis."

Ross Van Pelt has been elected surgeon of the Eureka Springs post, American Legion.

G. Allen Robinson, Harrison, has been appointed a supervisor of the Crooked Creek Soil Conservation District.

J. H. Hellums has been elected president of the Dumas Lions Club.

Henry G. Hollenberg, Little Rock, recently addressed the annual Little Rock Junior College luncheon.

The Doctors Jones have opened their new clinic and hospital building at Benton.

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PROCEEDINGS OF SOCIETIES

The Fifty-Year Club of the Arkansas Medical Society met in breakfast session at the Hotel Marion, Little Rock, April 21st, with 26 members in attendance. R. B. Robins addressed the meeting and memorial services were held with J. H. McCurry, Cash, making the following address:

In graves not far distant in the silent cities of the dead, lay the bones of our comrades who have finished their work, laid down their burdens and gone to rest. We come to drop flowers on their graves. If all the kind deeds they have done were flowers we could pluck a rose from every heart in the territory where they lived, worked and died. I was well acquainted with some of these doctors and know they died in the harness, faithfully continued their work up to the end. It is a high privilege thus to serve. May we emulate the good work of these our fellow physicians who have finished their life work and have gone to their eternal reward. May we avoid as far as we can their errors and profit by their good example. We shall ever reverence the memories of those who have faithfully served as physicians many years. The final event in a fruitful career is not a calamity but a natural and normal termination. Death is a wonderful part of the great mystery of life, and when we come to fullness of years should we not accept it as a welcome release and not grieve too much for the passing? Rather let us recount with pleasure the good these our fellows did while with us and rejoice at their undoubted triumphs over disease and suffering, and remember gratefully their kind fellowship, and their contributions to scientific medicine.

Deceased Members

W. W. Verser, Harrisburg
J. G. Land, Walnut Ridge
R. L. Hutcherson, Delaplaine
G. E. Cannon, Hope
Z. N. Short, Hot Springs
Wade H. L. Connell, Hot Springs
B. L. Bailey, Star City
George Harrod, Conway
H. L. Montgomery, Gravely

Officers elected are: President, M. L. Norwood, Lockesburg; Vice-President, Robert Caldwell, Little Rock; and Secretary-Treasurer, J. H. McCurry, Cash.

The Arkansas Obstetrical and Gynecological Society was formed in April with the following officers elected: E. T. Ellison, Texarkana, President; Willis H. Brown, Little Rock, President-Elect; Robert W. Ross, Little Rock, Secretary; and Hoyt Choate, Little Rock, and Haynes T. Jackson, Hot Springs National Park, members of the Executive Committee.

The First Councilor District Medical Society met at Walnut Ridge May 14th for the following program: "Surgery for Acquired Heart Disease," C. F. Kittle, Kansas City, Kansas; "Surgical Treatment of Gallbladder Disease," Alphonse S. Meyer, Jr., Memphis, and presentation of the Arkansas Division, American Cancer Society's film, "Diagnosis and Treatment of Cancer of the Uterus," J. J. Monfort, Batesville. A dinner followed the scientific session.

The Arkansas Society of Pathologists met April 19th for a discussion of the pathology of gastrointestinal disease. Officers elected are: Anderson Nettleship, President; Robert Lee, Secretary; and Carrol Shukers, Treasurer. A. S. Koenig, Fort Smith, was appointed chairman of a committee to study the problem of laboratory inspection and approval.

The Conway County Medical Society was addressed at Morrilton May 13th by J. J. Monfort, Batesville, "Abnormal Uterine Bleeding from Organic Causes," and by W. R. Brooksher, Fort Smith, "Radioactive Iodine in the Treatment of Hyperthyroidism." The American Cancer Society film on diagnosis and treatment of uterine cancer was shown.

WOMAN'S AUXILIARY NEWS

The Southeast Arkansas Medical Society and Auxiliary met in Monticello, Monday, March 16, for their regular monthly meeting which was held at the Ridgeway Hotel.

Doctors' Day was observed and Dr. Robert F. Hyatt, President of the organization, presided. The Auxiliary of the Society had charge of the Doctors' Day program. Mrs. M. C. Pedigrew of Pine Bluff gave an entertaining talk on "Trends in Etiquette." Red carnations, the Doctors' Day flower, were worn by the doctors. A white carnation was displayed in memory of Dr. H. E. Cockerham of Portland, a former member of the Society who died recently.

Dr. Kenneth Jones of Little Rock was guest speaker in the doctors' meeting, and spoke on the "Treatment of Intervertebral Disc Injuries."

About 40 doctors and their wives from Little Rock, Pine Bluff, Star City, Gould, Dumas, McGehee, Wilmot, Crossett and Monticello were present. Among the guests was Dr. William W. Wood of Mayo Clinic, Rochester, Minn.

Mrs. Van C. Binns.

Mrs. J. Kenneth Thompson and Mrs. Ralph Downs were hostesses for a "guest day" luncheon meeting of the Woman's Auxiliary, Sebastian County Medical Society, April 13th at the Old South.

Approximately 25 members and guests (wives of officers stationed at Camp Chaffee) were present.

At the business session conducted by the outgoing president, Mrs. John D. Olson, delegates and alternates to the state convention, April 20-22 in Little Rock, were named; plans for the annual spring picnic party for their husbands, which will be at the home of Dr. and Mrs. Marlin B. Hoge, on Cliff Drive, the latter part of May, were completed; and officers for next year were installed.

Convention delegates named follow: Mrs. Gordon Simpson, Mrs. Bob Thompson, Mrs. Wright Hawkins; and alternates, Mrs. E. C. Moulton, Jr., and Mrs. A. S. Koenig.

Mrs. Koenig was installed as president; Mrs. Ben Pride as secretary; and Mrs. Downs, treasurer. Mrs. Ogden automatically became vice president.

The Woman's Auxiliary of the Boone County Medical Society met April 7th in their regular monthly luncheon meeting at the Hotel Seville.

Mrs. Ross Fowler, president, presided. A report of the Doctors' Day activities was given by Mrs. Wm. H. Breit, chairman of the Doctors' Day observance. Mrs. Fowler read a letter from the president of the State Auxiliary, Mrs. A. A. Little, Texarkana, in which she told of the annual meeting of the Auxiliary to be held in Little Rock April 20, 21, 22. She outlined the program and entertainment planned for these days, and urged all members to attend. Mrs. Fowler and Mrs. H. V. Kirby were selected as delegates to the convention, with Mrs. Ulys Jackson as alternate.

Book Review

Toxemias of Pregnancy: By William J. Deickmann, S.B., M.D. Second edition, pp. 710, 95 illustrations, 1 color plate. Saint Louis: C. V. Mosby Co., 1952. Price $14.50.
This is a complete reference book on the subject.

Gifford's Textbook of Ophthalmology: By Francis Heed Adler, M.D., Professor of Ophthalmology, University of Pennsylvania Medical School. Consulting Surgeon, Wills Eye Hospital, Philadelphia. New, 5th edition. 488 pages with 281 figures and 26 color plates. Philadelphia and London: W. B. Saunders Company, 1953. Price $7.50.
This standard text on ophthalmology is designed for the student and as a reference work for the general physician, needs which are met in a practical manner.

Physical Diagnosis. By Harry Ealker, M.D., F.A.C.P., Professor of Clinical Medicine, Medical College of Virginia. Pp. 461. 126 illustrations. Saint Louis: The C. V. Mosby Company, 1952. Price $8.00.
This text comprehensively presents physical diagnosis but emphasizes, perhaps too much, the diagnosis of diseases of the heart and lungs.

Operating Room Technic. By Sisters of Saint Francis, Saint Mary's Hospital, Rochester, Minnesota. 4th edition. Pp. 345 with 219 figures. Price $6.50. Philadelphia: W. B. Saunders Co., 1952.
This is an accepted reference work on operative room technic and affords the opportunity for study and comparison by surgeons with their own methods.

Anatomy of the Nervous System: By Stephen Walter Ranson, M.D., Ph.D., Late Professor of Neurology and Director of Neurological Institute, Northwestern University Medical School, Chicago, and Sam L. Clark, M.D., Ph.D., Professor of Anatomy, The Vanderbilt University School of Medicine, Nashville. Ninth Edition. 581 pages with 434 illustrations, 18 in color. Philadelphia and London: W. B. Saunders Company, 1953.
The First Edition of this text appeared in 1920 and subsequent editions have appeared, which on the whole, have remained somewhat similar to the original. Since the death of Dr. Ranson, Dr. Sam L. Clark has continued to revise and author this work. The book has remained a standard textbook for the undergraduate and also a reference source. The Ninth Edition utilizes experimental data gained from the laboratory; however, it is necessarily a text dealing with basic neuro-anatomical principles and controversial questions are for the most part deleted.

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(1) Krantz, J. C., and Carr, C. J.: The Pharmacologic Principles of Medical Practice, Baltimore, The Williams & Wilkins Company, 1949 (Reprinted 1950), p. 518. (2) *ibid,* p. 515. (3) Carter, S.: Epilepsy, in Conn, H. F.: Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 612. (4) Salter, W. T.: A Textbook of Pharmacology, Philadelphia, W. B. Saunders Company, 1952, p. 231.

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• SPECIAL FEATURES

"Comments on the Practice of Medicine.... 29

Special Treatment of Mitral Stenosis and Report of Three Cases.... 32

• FEATURES

Obituary.... 35

Editorial.... 36

Tuberculosis Abstracts.... 38

Personals and News Items.... 40

Proceedings of Societies.... 42

Woman's Auxiliary News.... 42

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Vol. L JULY, 1953 No. 2

"COMMENTS ON THE PRACTICE OF MEDICINE"*

R. B. ROBINS, M. D.
Camden

Graduation from these schools here today is basically really "commencement" insofar as the acquisition of medical knowledge is concerned. Medical science is developing and progressing so rapidly that all of you will always have to be students in order to keep in step with modern technics. So the word "commencement" is really an appropriate one for such an occasion as this today.

I believe that the thing that motivated most of us to go into the medical field is that medicine is such a high calling. There is no field which gives a better opportunity for humanitarian service than does the field of medicine, nursing and its allied services in the technical area. The first sentence in our Code of Ethics states: "The prime object of the medical profession is to render service to humanity. Reward or financial gain is a secondary consideration." You are headed for a life-long experience which will be filled with a lot of satisfaction to your soul in that you will be able to render a great service to your fellowman.

After twenty-seven years of medical practice now, I can assure you as I have already indicated that our field of medicine is a field of continued learning. Most of the textbooks that you have been using will be out of date within five years of your graduation. So you must look forward to constantly availing yourselves of educational experiences and opportunities after your graduation. There are many such opportunities that will be available to you such as reading, society meetings, conventions and postgraduate courses. Let me stress with you the importance of reading and the development of a system of your own for fitting reading into your work schedule. You must not only keep abreast with medical science, but it behooves you as a physician, a nurse or a technician to be a good citizen and a responsible member of your community, to keep abreast of the times in which you are living and that means keeping informed outside of the field of medicine.

Every one of you should routinely and carefully read the national journals in your various fields—medicine, nursing and technology. A good plan to follow is to read the summary of each article in order to determine whether your interests would require the reading of the entire article. In addition to this you should keep up with the contents of your local and state publications and at least one journal connected with your special field * * * * in the case of general practice that journal is "GP" which is the official publication of the American Academy of General Practice. Incidentally, the American Academy of General Practice in its five years of existence now is the third largest medical organization in America today.

Before I forget it * * * * I want to remind you medical graduates who may not be acquainted with the service that the American Medical Association Library maintains a lending service of package libraries. By this I mean that if you desire information on any particular subject—if you desire a package library of the latest articles and information on any subject—you may request from the AMA library a package library on the subject and it will be sent to you on loan for a week without charge. This, you will find, is a very valuable service.

If you are wise you will establish the custom of attending some postgraduate course, convention or other scientific meeting once or twice every year. If you neglect to keep abreast of scientific development, close your mind to progress and rest upon your diploma you will be dangerous to your patient and to your community. The field of medicine must be a life-long education experience.

The medical horizon is full of medical organizations. Take an active part in as many of them as it is possible and remember that you will get out of them what you put into them. It not only behooves you to take an active part in your professional organizations, but also in community organizations such as service clubs, the Chamber

*Commencement address University of Nebraska School of Medicine, Omaha, Nebraska, June 13, 1953.

of Commerce, the Church and other organizations which have to do with the welfare of the community of which you are a part. These are your duties as a good citizen of your community.

The basic and fundamental unit of all medical organizations is the county medical society and the first thing that any young physician should do when he locates in a community is to contact the officers of the county medical society and make application for membership. It is essential in all respects to do so. You cannot belong to your state organization or the American Medical Association until you have first joined your county group and membership is also essential in order to obtain membership on the hospital staff.

For all of you I will say that professional relations is an important subject * * * * by that I mean, getting along with your colleagues. It is always conceded that people of good will can have honest differences of opinion and thought on scientific, social, economic and medical matters, but whenever there arises personal animosity and jealousy, it is not good.

So we have a Code of Ethics which I admonish you to become thoroughly familiar with and follow it in spirit, fully and honestly, so that you will play a fair clean game with your colleagues and the public. I have, on occasions, heard it said that the Code of Ethics is an arbitrary document created by a group of old men who are trying to make it tough for the younger fellows to succeed. Nothing could be farther from the truth. I feel that the Code of Ethics is based upon the Golden Rule and let me say if you will follow the Golden Rule you will not go wrong.

It seems to me that in the past few years it has been a popular pastime for certain politicians, magazine writers and even for certain medical men to throw brickbats at the medical profession. I know that in most any flower garden there may arise some weeds, but I do not believe that it is logical to destroy the entire garden in order to eliminate a few weeds. We all grant that there are imperfections in the medical ranks and that there are always a few black sheep, but I do not believe in condemning the entire profession for the acts of a few unethical ones. Certainly we must always pursue a never-ending attack against the unethical, the incompetent, the over-chargers, the over-operators and the quacks, but they are in the minority.

The public is made up of individuals just as you and I are individuals and it is their reaction as individuals to us as medical people which makes up the public's opinion of us. If the individual whom you have just treated is satisfied with your attention, your attitude and your fee, then 1/150,000,000 of the public relations of our profession is good. If you have incurred your patient's dissatisfaction and wrath, then just that much of the public relations of our profession is bad.

We must always remember that medical care exists for the benefit of the people and not for the benefit of the profession. So we must constantly strive to create and maintain an atmosphere of friendly feeling between medical people and the public.

There are many ramifications to this subject of good public relations which we must understand. The purchase of medical care is a negative purchase. It is something which the individual would like to avoid purchasing and you can never make the purchase of an appendectomy as attractive as the purchase of a radio or a television set. When a person has to purchase something that he had rather avoid, when all the time he had rather purchase a refrigerator or a new automobile, then he is liable to have some resentment deep down against the person from whom he has to make the purchase. We must make every effort to understand his viewpoint.

Incidentally, I might interject here that I think you will find from a practical standpoint that at least half of the patients with whom you come in contact, if you are careful to delve deeply enough, * * * * I say you will find that their ailment is a result of some emotional problem. The nation's biggest health problem today is mental health. One out of every 22 Americans will spend some time in a mental institution before his day is done. And next to that is the nation's biggest social problem, which is alcoholism—a disease of escape. And next to that perhaps is divorce, one out of every 3 or 4 marriages goes on the rocks in this country * * * * all of these things due to frustration and instability.

I am old-fashioned enough to believe that the psychiatrist's couch cannot take the place of the church in solving the problems of a frustrated society. Weren't you amazed? * * * * I was * * * * several years ago when a Senate Committee considered drawing up a National Code of Ethics to govern our conduct just as though the Ten Commandments and the Sermon on the Mount had never been heard of.

Medicine is an art as well as a science. We must know and understand people as well as know and understand our science. Perhaps in our search for science we have been losing the personal touch which means so much to one who is sick. It is just as important to treat the patient who

has the disease as it is to treat the disease that the patient has. Someone has said that the secret to good medical care is "caring for the patient." Let us never become too busy, too successful or too important to forget this is the essence of good patient relations.

We must always assume when a patient comes to us that there is something wrong * * * * otherwise he wouldn't come. It is just as important to listen to the patient as it is to listen to his heart. If you dismiss him because no pathology is found, then you have failed some way to satisfy his need. You are expected to be a counsellor and friend and many times there is where you will render your greatest service.

As you proceed from this commencement today down the avenue of life you will find that integrity, goodwill and service to your fellow-human will be more rewarding to you than wealth. Your education now has been successfully begun. Never feel that it is finished. One of your most cherished possessions will be an unquenchable thirst for more knowledge—a constant search for the discovery of new truth.

In my final remarks to you today, let me say that there has penetrated into all of our lives a great deal of uncertainty and insecurity. The days are gone when we can pursue our scientific lives with little or no concern about the outside world.

It is much more pleasant to talk about our rights than it is to talk about our duties and obligations. Yes, we have always enjoyed freedom in this country, but in order to preserve freedom we must realize that we are going to have to assume some responsibilities as citizens.

Medicine is closely related to current social, economic and political events. A threat to governmentalize or, as we have said, socialize, medicine is only part of a broad attack against the entire American free way of life. American medicine in the past few years has taken outstanding leadership in preserving the American free way of life. There are many ramifications in this fight to preserve freedom.

We have talked much about socialism. There is a new brand of socialism that has been urged upon us. It is not the old brand of government ownership — in fact, the proponents of this new brand do not advocate the obligations that go along with government ownership—they say "Why not let the tired old businessman continue to worry about meeting the payrolls, the interests on debts, and the other expenses? BUT let the Government control the over-all operation through rules, regulations, edicts and taxes." Yes, Government control and regulations is the new brand of socialism.

President Truman had a "Commission to Study the Health Needs of the Nation" which made its report not too long ago as most of you will remember. My observation was that the answer proposed to the solution of most every problem was **additional federal funds.** My friends, behind such an answer always lurks the shadow **of Federal control and regulation.**

Not too long ago I was shocked when I received a very disturbing bulletin which related how the medical profession in Argentina has lost its last remnants of freedom. It is tragic that physicians practicing in a so-called republic so close to the United States find their wrists shackled tighter than probably anywhere else in the world, with the possible exception of Russia.

Last year the Argentine Congress passed a law authorizing President Peron to reorganize the medical organizations—the National Academies of Medicine. The reason: all institutions must conform to the ideals of the Peronistic revolution.

In essence the article contained the very disheartening information that the medical organizations are no longer free institutions, but institutions directly submitting to the President of the Republic. The physician cannot leave the city or stop his professional activities without permission from the Public Health Ministry. The physician must obey all orders and if he is not obedient he is punished by fines, imprisonment or abolishment of his license. The present rules for all scientific societies provide that 15 days or more before the meetings take place, there must be requested permission from the police to whom there must be sent the list of speakers and the title of the papers to be reported. A policeman, sergeant, or officer of the police is present during every scientific meeting. If I were giving this commencement address at a University in Argentina today what I have just related would apply.

My friends, isn't it hard to believe that such Governmental domination has reached so close to our own shores?

I said to you a little earlier that the new brand of socialism didn't advocate government ownership * * * * it advocates Government control and regulation. You and I as citizens must keep ever on the alert * * * * let me tell you that on the opening day of the present Congress of our own country there were 1,117 legislative measures offered in the House of Representa-

tives of which fully 10% were on health and welfare subjects. Somebody gets an idea and immediately he says there must be a law. And so it goes.

Let me thank you for your invitation to be your guest on this occasion and bid you adieu by saying: Let us rededicate ourselves to the principles which have made this Nation great and let us keep constantly in mind that the price of freedom is **still** eternal vigilance.

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SURGICAL TREATMENT OF MITRAL STENOSIS AND REPORT OF THREE CASES

DR. JOSEPH A. BUCHMAN and DR. WILBURN M. HAMILTON
Little Rock

The purpose of this paper is to review briefly the indications and contra-indications for the surgical treatment of mitral stenosis and to report on three cases undergoing mitral commissurotomy.

The surgical correction of mitral stenosis was first suggested by Sir Lauder Bunton in 1902. Twenty-one years later Dr. Cutler cut the first mitral ring. Interest was again renewed during and immediately after World War II by such men as Blalock, Harkens, Bailey, Smitthy, and others. From their work evolved the present operative techniques, the general principle being to enlarge the opening of the mitral valve thereby allowing more blood to pass from the left auricle into the left ventricle during diastole. The first idea was simply to punch out a piece of the stenotic ring, but it was soon found that this was not satisfactory since it gave the patient a considerable degree of mitral insufficiency. The operation of either dilating the mitral ring with the finger or of first cutting it with a special knife along the line of closure and then dilating it with the finger has evolved since 1948. In this way one attempts not to increase the insufficiency but simply to lessen the degree of stenosis of the mitral valve.

The most satisfactory approach has been through the left auricular appendage. Bleeding during the actual intracardiac procedure can be controlled with purse-string sutures around the auricular appendage and a special clamp. The advantage of using the left auricular appendage is that there are no chordae tendineae in the operative field. There should be no serious disturbance of cardiac rhythm or function, and the appendage can be closed with ease. The closure is adequate and leaves no scar on the heart muscle itself.

Dr. Cutler in 1923 suggested the removal of a portion of the anterior leaflet of the valve, and with this in mind he operated on nine cases. Only one case survived for any length of time, that one for four and one-half years. The results were not satisfactory; consequently, the procedure was dropped for many years. When it was revived less than ten years ago, it was changed in several ways. The surgeon now has a choice of several procedures. One is simple dilatation of the mitral orifice with the finger. Sometimes, due to the stenotic mitral valve this is impossible, and it may be necessary to cut the valve along the line of fusion. After this has been done, the valve may then be dilated with the finger. At the close of the operative procedure the opening should approximate the width of two and one-half fingers.

One would think that the mortality rate for a procedure of this magnitude would be almost prohibitive. However, when one considers the seriousness of this disease and the disability produced by the disease, it is not at all forbidding. The present mortality rate is in the neighborhood of ten per cent. In well selected cases in experienced hands it seems likely the mortality rate will drop to less than half of the above-given figure. Wolfe and Levine have said that the duration of life for people with mitral stenosis following severe hemoptysis is on the average thirty-two and one-half months. Levine further states that the duration of life in people with mitral stenosis is four and one-half years following the first attack of congestive failure. So it seems that if the cases are well selected, they should be markedly benefitted by an operation enlarging the mitral orifice. To date there are no studies on the long-term prognosis, but results thus far recorded indicate that many patients may gain several useful years of life as a result of this procedure.

The symptoms of mitral stenosis are a direct consequence of the engorgement of the pulmonary circulation induced by an obstructed outflow of blood at the mitral orifice. Early in the

disease inflow of blood into the pulmonary circulation is supported by a competent right ventricle.

The symptoms and signs of pulmonary engorgement, that is, exertional dyspnea, cough, pulmonary edema, and hemoptysis, constitute the indications for mitral surgery. Andrus states that "since a number of patients with mitral stenosis live to an advanced age without handicap, it scarcely seems advisable to intervene by surgical means in every case in which this valve lesion is discovered." Rather, operation should be advised only in those patients who are showing progressive symptoms of disability and who do not exhibit any of the distinct contraindications to mitral valve surgery.

The contraindications to this procedure are:

(1) presence of active rheumatic carditis
(2) subacute bacterial endocarditis
(3) intractable right heart failure
(4) marked mitral regurgitation
(5) multiple valve involvement
(6) embolism

Presence of active rheumatic carditis — The presence of the active phase of rheumatic carditis is a distinct contraindication, and some of the fatalities attending the operation have apparently resulted from an exacerbation of rheumatic carditis. The presence of fever, elevated sedimentation rate and white count in the patient with mitral stenosis should strongly suggest an active rheumatic state unless other more definite causes for these findings can be clearly defined.

Subacute bacterial endocarditis—This is an obvious contraindication; however, re-awakening of a subacute bacterial endocarditis in a healed case that has undergone surgery has apparently not been a serious problem.

Intractable right heart failure—In the individual with long-standing right heart failure, who has ceased to respond to all known medical therapy, the circulatory disability has undoubtedly reached an irreversible stage. In this group of individuals the operative mortality is usually extremely high.

Mitral regurgitation—To us this has been the most difficult factor in determining suitability for surgery since the effects of mitral regurgitation upon the circulatory dynamics is difficult to appraise in the given case. A markedly enlarged left auricle suggests a considerable degree of mitral insufficiency, particularly if one is able to see dilatation of the auricle with ventricular systole during fluoroscopic examination of the heart. It is a possibility that surgery may increase the adverse effects of the regurgitation which causes concern regarding mitral insufficiency in these cases. Bailey stated that some degree of mitral insufficiency is inevitable in mitral stenosis, and the presence of a mild degree does not make the patient inacceptable for surgery. Blalock likewise said that a small degree of regurgitation is not a contraindication to commissurotomy.

Multiple valve involvement—This contraindication has particular reference to combined mitral tenosis and arotic valve disease inasmuch as the largest proportion of the ventricular contents would flow back through the inflow tract of the left ventricle rather than through the obstructed aortic valve.

Embolism—Postoperative embolism is one of the most frequent complications following surgery, and this event is even more common in the patient who gives a history of recent or frequent embolic phenomena prior to surgery. Auricular fibrillation, although not a definite contraindication in itself, contributes to the likelihood of embolism particularly where the auricular fibrillation is long established.

The results of the surgical treatment of mitral stenosis will depend to a very large degree upon the proper selection of cases. By no means do all patients with mitral stenosis require surgery, as many of them will live a relatively normal life span without evident progression of the disease. However, benefit from surgery diminishes as the duration of the symptoms of cough, exertional dyspnea, pulmonary edema, and hemoptysis increase. Therefore, mitral surgery should be advised as soon as progessing disability becomes apparent. This progressing disability is more common among women and is usually during the third to fifth decade of life. A review of the reports reveals that in some cases surgery has offered dramatic relief of symptoms, and well over half have had great improvement in disability. Blalock states that the subjective improvement is usually better than the alterations in the measured dynamics of the circulation would indicate. It is still too early to evaluate the long-term results, but to date the improvement in the patients would certainly seem to justify the operation. As stated previously, circulatory results depend largely on the proper selection of cases for surgery.

Case No. 1 (J. W.)

This patient is an 18-year-old white female who had her first attack of rheumatic fever at the age of 16 years. Three months following her first attack, she had a second attack of rheumatic fever.

During both the attacks she complained of chest pain, shortness of breath, and hemoptysis. This became progressively worse during the second attack. One year following the first attack of rheumatic fever she had a marked exertional dyspnea and very severe hemoptysis. At that time she was studied extensively for tuberculosis, but all reports were negative. She remined in the hospital approximately six months at that time, so short of breath that she was barely able to get out of bed. She finally was discharged home but even then could not walk but one block and was not able to do any housework. The pertinent physical findings were: blood pressure 100/65, pulse 100, sinus rhythm. The preoperative circulation time was 16 seconds; postoperatively it was 14.4 seconds. There was both left auricular and left ventricular enlargement. There was a marked distolic rumble heard over the apex of the heart, and there was a palpable thrill.

She was admitted to St. Vincent's Infirmary on December 28, 1951, and a mitral commissurotomy was done on January 5, 1952. At operation the heart was entered through the left auricular appendage. The mitral valve would not admit the finger tip, was very stenotic, and was unable to be dilated with the finger. Consequently, it was cut along the line of the commissure with a knife and then dilated to admit at least two fingers. There was no mitral regurgitation. The patient made a very uneventful recovery but was kept in the hospital for approximately three weeks following the surgery. Since surgery she has made a steady but progressive improvement. She has gained weight and now has been well rehabilitated.

The patient was re-examined on June 30, 1952. Examination of the heart reveals a slightly accentuated P-2 and a slight rumble. The patient looks and feels 100% better. She states that she is perfectly well and has a job as a waitress.

Case No. 2 (C. C. S.)

The patient is a 25-year-old white female, the mother of three children, who has been very dyspneic for many years. The dyspnea has been markedly enhanced by a recent pregnancy which terminated at seven months. The patient stated that she was unable to walk any distance at all without being very short of breath. She slept with three pillows and had considerable difficulty doing any housework whatsoever. Examination revealed her to be dyspneic even in bed with a 1-plus ankle edema. She had venous distention of the veins of the neck. Physical examination revealed a blood pressure of 98/78 with a pulse of 100. There was a marked diastolic rumble heard best over the mitral area. The left ventricle was enlarged very little if at all. There was considerable enlargement of the left auricle. Laboratory data: venous pressure—17.5 cms. of water; blood studies and urinalysis—not contributory.

Operation was performed on March 19, 1952. The heart was entered through the left auricular appendage. The mitral valve was dilated with no difficulty to two finger-breadths. No significant amount of mitral regurgitation was noted. The patient tolerated the operative procedure very well and was returned to the room in good condition.

The patient had a very stormy postoperative course. She had a complete atelectasis of the left lung on the third postoperative day which was relieved by prompt bronchoscopy. However, she was discharged from the hospital on the 18th postoperative day. Her blood pressure was 100/70 at that time. She was afebrile and complained of no dyspnea. Her venous pressure at the time of discharge was 8 cms. of water.

Course: The patient has continued to improve at home. Her blood pressure now is 108/84. Her pulse rate is 90, and she does all her own housework which includes caring for three children. She also states that she has had 100% improvement. Upon examination of the heart the P-2 is accentuated, and the murmur is still present although not as pronounced. On July 19, 1952, she underwent surgery for a tubal ligation without any difficulty whatever.

Case No. 3 (J. S.)

The patient is a 30-year-old white female who has been having increasing dyspnea and orthopnea for the past four years. She states that at the age of seven she had her first attack of rheumatic fever and again had a similar attack at the age of 17 and another at the age of 23. However, she has been in serious difficulty for only four years and at the time of the first examination was so incapacitated that she spent most of her time in bed.

Upon physical examination it was noted that both the left ventricle and the left auricle were enlarged. In addition to a diastolic rumble and a systolic murmur over the mitral area, she had a short, soft, aortic systolic murmur. Blood pressure was 114/78; pulse was 88. It was felt that she had mitral stenosis with some regurgitation and a very mild degree of aortic insufficiency. She was admitted to the Arkansas Baptist Hospital on June 1, 1952.

At the hospital her right chest was tapped on several occasions and a considerable amount of clear fluid was removed. All studies on this fluid were negative. She was taken to surgery on June 17, and at operation the left auricular appendage was used to enter the heart. It was noted that the mitral orifice was small and dilated easily with the finger. However, in so doing, the regurgitation (which she had before the valve was dilated) increased in amount. The valve was dilated to 2½ finger-breadths in width. The patient tolerated the operative procedure well and made a very normal postoperative recovery. She was discharged on July 5, 1952.

This patient has not shown the marked improvement seen in the first two patients. It was noted at the time of surgery that she had a considerable degree of regurgitation which we think accounts for the lack of improvement seen in the other two cases which are reported.

Summary: A brief review of the history of mitral valve surgery and indications and contraindications for mitral commissurotomy has been presented. It is felt that proper selection of cases is perhaps the most important single factor in obtaining satisfactory results. The history and follow-up on three patients undergoing mitral surgery has been presented.

From the medical and surgical departments of St. Vincent's Infirmary and the Arkansas Baptist Hospital at Little Rock, Arkansas.

OBITUARY

GEORGE M. LOVE, 79, died at Rogers May 30th after a prolonged illness. Born in Lovington, Illinois, December 9, 1873. A graduate of the Southwest Medical School and Hospital of Kansas City in 1909, he located in Rogers on graduation and established the city's first hospital. He served on the School Board for 18 years and was a retired chief of the fire department, a charter member of the Rotary club, a member and for many years, secretary, of the Benton County Medical Society, organized the Benton County Tuberculosis Association and served as its president for thirty years. Surviving are his wife and a brother.

BRIAN E. BARLOW, age 43, Dermott died suddenly May 21st. Born in Dermott he graduated from Westminister College, Fulton, Missouri, and received his medical degree from the University of Arkansas School of Medicine in 1937. Following internship training at Scott and White Clinic, Temple, Texas, and at the Arkansas State Tuberculosis Sanatorium, he became associated with his father in practice at Dermott. He was a member of the American Trudeau Society, a Fellow of the American College of Chest Physicians, a Fellow of the American Academy of General Practice, an associate Fellow of the International College of Surgeons, a Fellow of the Southwestern Surgical Congress, a member and past-president of the Chicot County Medical Society and a member of the Arkansas Medical Society and the American Medical Association. He was a past-president of the Dermott Rotary club, a member of the Dermott School Board and of the Chamber of Commerce and of the Board of Stewards of the Methodist church. Surviving are his wife, a son and a daughter.

LEONCE J. KOSMINSKY, 76 years, died at Texarkana May 2nd after a prolonged illness. Born in Texarkana, he graduated from the University of Maryland School of Medicine in 1906 and had continuously practiced in Texarkana. He had served the Arkansas Medical Society as President in 1933-34; was Chef de Chemin de Fer Nationale of the Forty and Eight; had served as post commander and as state commander of the American Legion and in other Legion offices; was in military service during World War I; a member and secretary of the State Medical Board of the Arkansas Medical Society; local surgeon for the Missouri Pacific and the Texas and Pacific railroads; a member and president of the Mount Sinai Congregation; a member and state president of the B. P. O. E.; president of the Arkansas Jewish Assembly, a charter member of the Texarkana Country Club and a member of B'Nai Brith. Surviving is his wife.

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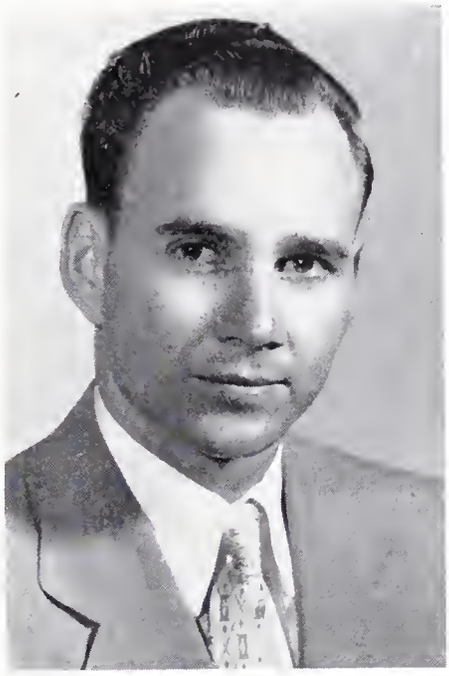

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★ Editorial ★

PUBLIC Physician Patient Personal RELATIONS

This column has been instituted by the Public Relations Committee for the purpose of presenting and discussing any matters which may pertain to favorable and friendly relations with the public. It comes as a surprise to some of us to find that the medical profession should need to give any consideration whatsoever to the subject of public relations.

Probably, unfavorable comments about us as physicians arise from the fact that we have, in some cases, become too busy or too scientific to give the proper personal attention to our patients. We are not entirely at fault in this respect because demands and responsibilities upon us have become much greater than ever before. Nevertheless, it is now time for us to examine our physician-patient relations and see that we are as considerate and thoughtful as possible. It is altogether true that the opinion of your patients toward medicine as a whole is a mirror image of their opinion of you. As Past-President Drennen stated in his President's address, public relations is "the way you get along with folks, depending mostly on how you treat them."

The Public Relations Committee feels that this matter should be considered in a careful, dignified and ethical manner, and any suggestions, comments or material for discussion will be welcomed.

Incidentally, our Rural Health Conference will be held in Little Rock on July 28 and 29. These conferences have been probably the best public relations activity of our Society, and this one certainly merits your support and assistance.

"WE'LL WATCH IT"—THE PATIENT'S DEATH KNELL

ALFRED KAHN, JR., M. D.
Little Rock

In the light of the present medical experience, one of the most unfortunate situations that can befall a patient with a solitary chest lesion is for his physician to say, "Well, I don't know what this is; let's just watch it awhile." These solitary lung lesions may represent cancer. In a recent survey of unilateral solitary radiopacities studied by P. E. Bernatz and O. T. Clagett, and published in J. A. M. A., Volume 152, page 379, May 30, 1953, eighteen per cent of the lesions proved to be cancer.

In men, cancer of the lung is the commonest malignancy found at post mortem in many hospital's series. Unfortunately, cancer of the lung is one of the malignancies that is least amenable to surgery. Only five per cent of operated cases survive for five years. The only series that could show a substantially better cure rate would be on selected cases operated on very early. In other words, the very small asymptomatic solitary lung cancer, if removed promptly, offers the patient the one good chance of survival. "We'll watch it" applied to a lesion of the lung that is not promptly diagnosable may result in the patient's death.

On the other hand, this is not to be construed as proposing surgery for the isolated lung lesion that readily yields to current diagnostic methods. Among the current methods of investigating lung pathology, aside from a thorough history and physical examination, are: fluroscopy, laminography, bronchoscopy, angiography, skin testing with bacterial and fungus preparations, bronchography, sputum for tumor cells and bacteria, biopsy, diagnostic pneumothorax and thoracoscopy, etc. Ordinary chest x-rays alone will not differentiate harmless lesions from the dangerous ones. Wolpaw (Annals of Internal Medicine, volume 37, page 489, September, 1952) lists the following assorted diagnoses established on twenty-five asymptomatic solitary lesions: bronchogenic carcinoma 6, tuberculoma 7, bronchial adenoma 2, hamartoma 2, metastatic carcinoma 2, fibroma 1, pericardial cyst 1, arterio-venous aneurysm 1, and granuloma 3.

"We'll watch it" may be the patient's death knell. The physician will have to accept the blame for the loss of a patient with cancer who might have been salvaged by prompt treatment. In experienced hands thoracotomy carries no greater risk than laparotomy; in a neighboring city over 100 pulmonary resections were performed for bronchiectasis without the loss of a single life.

THE NEW YORK SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The greatest registration ever was had at the New York session of the American Medical Association June 1-5th, with 17,958 physicians in attendance. Total registration was 48,980.

The activities of the House of Delegates comprised several important measures, particularly its decision on Federal care for non-service connected disabilities of veterans. In brief it was the recommendation of the House of Delegates that such treatment be discontinued except in cases involving tuberculosis, psychiatric of neurological disorders. The reference committee report stated "It is the belief of your committee that the medical profession must concern itself, not with the numbers of 'chiselers' in Veterans Administration hospitals nor with the efficacy of the Veterans Administration in the administration of enabling legislation, but rather with the broad question of whether such legislation is sound, whether the Federal government should continue to engage in a gigantic medical care program in competition with private medical institutions and whether the ever-increasing cost of such a program is a proper burden to impose on the taxpayers of the country. A consideration of this problem must of course be predicated upon a concern for the health of the entire population and not just a particular segment."

Spirited discussion was had on the report of the committee to study the relations of medicine and osteopathy with final decision deferred to the annual session of 1954. There were five resolutions concerning the Essentials of an Approved Internship which were adopted at the December, 1952, session in Denver and the problem was referred to a special committee for further study. Approval was given to the Bricker resolution concerning international treaties.

Dr. Alfred Blalock received the Distinguished Service Award. Walter B. Martin, Norfolk, Virginia, was selected as president-elect; Carl H. Gellennhien, Valmora, New Mexico, as vice-president, and George F. Lull, was re-elected secretary. Julian P. Price, Florence, South Carolina; Edwin S. Hamilton, Kankakee, Illinois, and Gunnar Gundersen, La Crosse, Wisconsin, were elected to the Board of Trustees.

The annual interim session will be held in Saint Louis, December 1-4th, 1953.

RURAL HEALTH CONFERENCE

The Third Annual Rural Health Conference sponsored by the Arkansas Medical Society and cooperating agencies will be held at the Hotel Marion, Little Rock, July 28th and 29th. This conference has grown steadily in interest and attendance, especially by lay persons and those engaged in related activities. Physicians attending show an increase in numbers but, as yet, the program has not met with the support and cooperation by physicians as the importance of the conference warrants. It is hoped that the 1953 session will bring many more physicians to the meetings. The program follows:

TUESDAY, JULY 28, 1953

10:00 A.M.—Registration.

1:00 P.M.—Opening Session, Dr. R. C. Dickinson, Presiding.
Group Singing led by Mr. Graham Wright, Agricultural Extension Service, University of Arkansas.

1:15 P.M.—Invocation, The Reverend Dwight Savage, Louisville, Arkansas.
National Anthem.
Address of Welcome, Dr. R. C. Dickinson, President, Arkansas Medical Society.

1:30 P.M.—"Rural Health in Three Dimensions," Mr. Aubrey D. Gates, Field Director, Council on Rural Health, American Medical Association.

2:05 P.M.—"Health Insurance in Review," Open Forum.
Discussion leader, Mr. Paul A. Miller, Sociologist, Agricultural Extension Service, Michigan State College, Lansing, Mich.
Dr. Ellery Gay, Little Rock, Arkansas.
Mr. Lambert Schulze, Staff Executive, Provident Life and Accident Insurance Co., Chattanooga, Tennessee.
Mr. Sam Barham, Executive Director, Blue Cross-Blue Shield, Topeka, Kansas.
Mr. John Gilbreath, Executive Director, Arkansas Baptist Hospital, Little Rock, Arkansas.
Mr. Harvey Coombs, State Insurance Commission, Little Rock, Arkansas.

3:45 P.M.—"Problems of the Aged and Chronically Ill," B. N. Saltzman, M. D. Mountain Home, Arkansas.
"The Problems of Building a Home for the Aged," The Reverend Clarence Horst, Mountain Home, Arkansas.
"Requirements for Construction and Operation of Nursing Home Facilities," Mr. Moody Moore, Hospital Division, Arkansas State Board of Health.
Discussion leader, Mr. Paul A. Miller.

6:00 P.M.—Dutch Treat Dinner, ($2.50 per person) Ball Room, Hotel Marion.
B. N. Saltzman, M. D., Chairman, Rural Health Committee, Arkansas Medical Society, Presiding.
Invocation.
Music, "Marked Tree Ensemble," under the direction of "Pop" Hodges.
Address, Kenneth McFarland, Ph. D., Educational Consultant and Lecturer for General Motors Corporation.

WEDNESDAY, JULY 29, 1953

Ball Room, Hotel Marion

8:30 A.M.—Mr. Waldo Frasier, Presiding, Executive Secretary, Arkansas Farm Bureau Federation.
Group Singing, led by Mr. Graham Wright, Agricultural Extension Service, University of Arkansas.

8:45 A.M.—"RURAL SANITATION AND HYGIENE."
(A) "Dental Problems," H. S. Dwyer, D.D.S., Dental Director, Arkansas State Board of Health.
(B) "Rural Sanitation," Mr. Carol French, Director of the Division of Water and Sewage, Arkansas State Board of Health.
(C) "Problems in Rural Schools," Mr. Dean Whiteside, State Supervisor of Rural Education, State Department of Education.
Consultant, John T. Herron, M. D., State Health Officer.
Discussion Leader, Mr. Paul A. Miller.

10:50 A.M.—"What's Next?" Miss Helen Robinson, Health Education Specialist, University of Arkansas, presiding.
Group from Columbia County.

11:50 A.M.—Summary, Mr. Paul A. Miller.

12:00 Noon—Closing Remarks, Dr. R. C. Dickinson, President, Arkansas Medical Society.

COMMITTEE ON RURAL HEALTH, ARKANSAS MEDICAL SOCIETY

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TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

COMMUNITY-WIDE CHEST X-RAY SURVEY

Tuberculosis control rests primarily on the prevention of the spread of infection. With the elimination of milk-borne infections, this boils down to finding every human source of infection—that is, every patient with active disease—as soon as possible, so that supervision and care, the means of preventing further infection and of rendering the patient noninfectious, can be provided at the earliest possible moment. Until we have an effective antituberculosis vaccine comparable to smallpox vaccine or diphtheria toxoid, this will continue to be the principal basis for the tuberculosis control program.

This in no way belittles the importance of social and economic factors in the reduction of tuberculosis morbidity and mortality. Although the tuberculosis worker realizes that such factors have been of major importance in the reductions effected to date—and, perhaps, even of greater importance than the specific attack upon tuberculosis itself—he faces realistically the fact that improvements in standards of living are dependent upon many diverse factors, which he personally can effect only to a minor degree. Although he supports programs which may improve standards of living, he believes that short cuts can be taken to the goal of tuberculosis eradication by specific anti-infection measures. He realizes that no case of tuberculosis ever occurs in the absence of the tubercle bacillus. He is aware of examples of other communicable diseases whose prevalence was precipitously reduced through the application of specific control measures, without any concurrent, significant change in social and economic conditions. Multiple causation of tuberculosis is real—but the other causes do not count if the tubercle bacillus is eliminated. The practical approach to the control of tuberculosis, then, is to find infectious cases as soon as possible after they have become infectious.

The value of finding cases is directly related to personnel and facilities available for adequate supervision and proper hospital treatment. Ideally, therefore, before conducting a case-finding program, one should estimate the number of cases which exist in the community and arrange for adequate facilities for their care and supervision. However, human nature being what it is, and with the demands for public funds often exceeding available amounts, it is frequently necessary to reverse this process and find the cases first. When this is done, a community's authorities may be approached with a specific, concrete problem needing immediate solution, rather than an estimate of a problem for which facilities should be provided. We can get higher percentage yields of

Public Health Service, Publication No. 222, Federal Security Agency—Foreword by James E. Perkins, M.D.

active cases of tuberculosis by seeking these cases in certain, special segments of the population, such as the household contacts of known cases and patients admitted to general hospitals. Such segmental case-finding programs are essential but the difficulty is that if case-finding activities were confined solely to such groups, we should still miss the majority of active cases in a community. This is especially true in the large cities, where infections are likely to occur from sources which cannot be traced by the usual epidemiological investigations.

About five years ago, it became clear that the community-wide approach to tuberculosis case-finding was the indicated method. The difficulties and expense of community-wide surveys were not underestimated, but these were not regarded as insurmountable obstacles. Moreover, the promise which the community-wide chest X-ray survey held for effective tuberculosis control would more than justify the efforts needed to launch the program.

It was obvious that community-wide chest X-ray surveys could be conducted most effectively and efficiently in the large cities, the very places which were most in need of such case-finding programs, and where local case-finding facilities were often not adequate for completing such programs in a reasonable period of time. Since the large cities have the highest tuberculosis death rates and well organized medical and public health facilities, including hospitals, clinics, and official and voluntary health organizations, they were the most logical places to initiate these mass screening programs.

The time element is very important in community-wide chest X-ray surveys. If the survey is conducted at such a slow tempo that only a fraction of infectious cases are discovered in a given year, little or no dent is made in the amount of infection in the community. Finding 10 per cent of the cases per year over a nine year period, for example, is not nearly as effective as finding 90 per cent of the cases in one year.

It would be ideal to have every person receive an annual chest X-ray through local facilities as part of a general physical examination, preferably with the physical examination performed by the family physician. However, this is only an ideal at the present time, and the community-wide chest X-ray survey offers a practical way of bridging the gap until we can reach this goal. An undertaking like the community-wide chest X-ray survey is bound to result in temporary adjustments and changes in normal community health services, and these, in turn, can make for problems and difficulties. Experience, however, has shown how to minimize these problems and difficulties and also that such temporary dislocations of a community's health services are not without benefit. First, before a chest X-ray survey is begun, the official and voluntary health agencies of a community must go through some new thinking in the evaluation of their tuberculosis control program. Second, other community groups and civic leaders are brought actively into the program of tuberculosis control, often for the first time. Third, the survey helps to make almost every citizen of a community aware of the tuberculosis problem, and to realize that he can help solve it. And finally, the mass case-finding program stimulates a community's civic leadership toward providing facilities for the diagnosis and treatment of tuberculosis more rapidly than they otherwise would.

There are still many questions to be answered with regard to community-wide chest X-ray surveys. Some of these are: (1) How often should surveys be repeated? (2) At what low point of tuberculosis prevalence in a community will the yield of new cases be so low as to make the expense of community-wide chest X-ray surveys exorbitant? (3) To what extent can and should community-wide chest X-ray surveys be combined with screening programs for other conditions? The existence of these questions does not justify altering the program for the present. Surveys conducted thus far have indicated that they are practical procedures, that they yield worthwhile results, and that they must be continued for some time to come.

Since tuberculosis is a communicable and therefore unnecessary disease, the community-wide chest X-ray survey deserves the full support of the medical profession, the official health agency, and the voluntary health association. The action of the Public Health Service in making personnel and facilities available to large cities through their state health departments for these surveys was a bold and courageous step which is paying large dividends for tuberculosis control.

PERSONALS AND NEWS ITEMS

R. B. Robins, Camden, gave the commencement address to the University of Nebraska School of Medicine at Omaha June 13th.

James Estes has been released from military service and has returned to Warren for practice.

The American Medical Education Foundation has announced receipts of contributions during May from the Woman's Auxiliary to the Garland County Medical Society and from R. C. Shanlever, Jonesboro.

Willis E. Brown, Little Rock, attended meetings of the Endocrine Society of New York, the American Society for the Study of Sterility and the executive board meeting of the American Academy of Obstetrics and Gynecology during June.

The Alumni Association of the University of Arkansas School of Medicine has elected the following officers: President, Eugene H. Crawley, Little Rock; Vice-president, Art B. Martin, Fort Smith, and Secretary, Joe A. Norton, Little Rock.

Dr. and Mrs. C. R. Chesnutt, Little Rock, recently toured South America.

D. W. Goldstein, Fort Smith, attended the recent meeting of the Society for Investigative Dermatology in New York.

C. F. Boulden, L. A. Whittaker and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Rogers June 19th under the sponsorship of the Benton County Medical Society and the Arkansas Division, American Cancer Society.

Fred Inman has located at McCrory.

Lewis B. Tilley is associated with P. R. Anderson in practice at Arkadelphia.

A. R. Brown, Searcy, has been recalled to active military service.

BORN—On March 7th, a daughter, Frances, to Dr. and Mrs. Sam Phillips, Little Rock.

R. C. Dickinson, Horatio, received the Distinguished Alumnus Award at the Commencement Exercises of the University of Arkansas School of Medicine, June 14th.

H. B. Wright, Waldron, spent a recent vacation in Florida.

L. H. McDaniel, Tyronza, has been elected Vice-Chairman, Section of General Practice, American Medical Association.

R. E. Crigler, Fort Smith, attended the recent meeting of the American Proctological Society in Boston.

Dr. and Mrs. Robert Thompson, Fort Smith, spent a June vacation in Idaho.

Dr. and Mrs. T. P. Foltz, Fort Smith, spent a recent vacation in New York city.

Joe Verser, Harrisburg, has been elected an associate fellow of the International College of Surgeons.

Chas. W. Dixon has been elected president of the Gould Lion's club.

T. A. Formby is associated with M. C. Hawkins, Jr., in practice at Searcy.

Charles W. Bailey has established an office at Greenwood.

Harry E. Murry, Texarkana, recently addressed the Kiwanis club on his trip to Europe.

Dr. and Mrs. R. S. Faircloth, Walnut Ridge, are touring Europe.

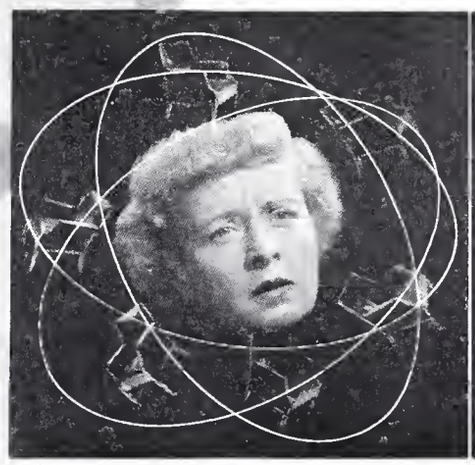
Paul O. Wright, Lepanto, has been called to military service.

E. H. Crawley, Little Rock, and Max McAlister, Fayetteville, have been elected second vice-president and director, respectively, of the University of Arkansas Alumni Association.

Chas. R. Henry, Little Rock, presided over the recent sessions of the Continental Gynecological Society in Atlantic City as president.

Dr. and Mrs. W. E. Jennings, Rogers, spent a recent vacation on the Gulf coast.

1. *Dizziness . . . movement is within the head.*
2. *Objective vertigo . . . the environment is in motion.*
3. *Subjective vertigo . . . the patient himself moves in space.*



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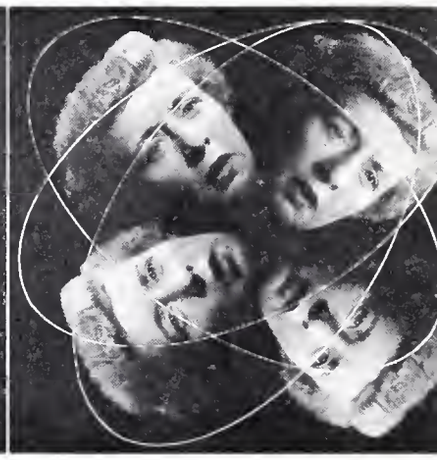

3

TYPES OF VERTIGO:

Their symptomatic relief with Dramamine®

The disagreeable sensations of dizziness which physicians are frequently required to explain to patients have been described by Simonton[1] as varying from a slight sensation of confusion to severe vertigo.

While dizziness or giddiness is classified as a sensation of unsteadiness with a feeling of movement within the head, in vertigo the environment seems to spin (objective vertigo) or the body to revolve in space (subjective vertigo). Labyrinthine disturbances are likely to cause a sensation of rotation. Among the more common causes of dizziness or vertigo, this author lists: Damage to the vestibular nuclei or tracts in the central nervous system, involvement of the vestibular end organs by disease of the ear, Ménière's disease, toxicity of drugs, ocular vertigo from sudden diplopia, visual field defects, looking down from heights and motion sickness due to hyperactive labyrinthine reaction from riding in vehicles.

Dramamine (brand of dimenhydrinate) has proved effective in treating many of these disturbances. The indications for which Dramamine is now Council accepted include: Motion sickness, the nausea and vomiting associated with pregnancy, certain drugs, electroshock therapy and narcotization; vestibular dysfunction associated with streptomycin therapy; the vertigo of Ménière's syndrome, hypertensive disease and that following fenestration procedures, labyrinthitis and radiation sickness.

1. Simonton, K. M.: The Symptom of Dizziness, Arizona Med. *6*:28 (Sept.) 1949.

SEARLE *Research in the Service of Medicine*

Dr. and Mrs. Hugh Edwards, Searcy, spent a vacation in Bermuda.

H. Fay H. Jones, Little Rock, attended the Saint Louis session of the American Urological Association during May.

Fred H. Krock, E. Z. Hornberger and W. R. Brooksher, Fort Smith, and L. M. Zell, Little Rock, conducted a diagnostic cancer clinic at Russellville June 9th under the sponsorship of the Pope-Yell County Medical Society and the Arkansas Division, American Cancer Society.

Anderson Nettleship, Little Rock, addressed the Arkansas Peace Officer's Conference May 7th on "The Duties of the State Medical Examiner" and on May 11th he addressed the Garland County Medical Society on "The Problems of the Aged and Presenile Group of Patients."

Hayden C. Nicholson has been elected chairman of the Greater Little Rock Community Council.

Gilbert O. Dean, James Barker and Calvin Dillaha, Little Rock, recently conducted diagnostic cancer clinics at Sheridan and Perryville under auspices of the local county medical societies and the Arkansas Division, American Cancer Society.

Jerome S. Levy, Little Rock, was elected president of the Arkansas Tuberculosis Association May 11th.

Paul Mahoney, Little Rock, is taking special work with Samuel Fomon in New York city.

E. L. Collette has been elected commander of the Rogers post, American Legion.

J. L. Jackson recently addressed the Bentonville Kiwanis club on mass tuberculosis surveys.

Willis E. Brown, Little Rock, presented "Abruptio Placenta" and "Vaginal Hysterectomy" before the recent session of the Louisiana State Medical Society. Dr. Brown addressed the North Dakota State Medical Society May 11th on "Carcinoma of the Cervix Uteri."

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PROCEEDINGS OF SOCIETIES

Arkansas physicians participating in the Southwest Allergy Forum at Kansas City June 14-16th were: Thomas G. Johnston, Little Rock; R. E. Schirmer, Fort Smith, and Alan Cazort, Little Rock.

The annual Johnson County Medical Society banquet was held at Clarksville May 21st with approximately 100 physicians in attendance. Neal Shannon discussed the activities of the U. S. Secret Service.

Dr. and Mrs. T. E. Rhine, Thornton, entertained the Ouachita County Medical Society June 25th celebrating Dr. Rhine's fifty-five years in the practice of medicine.

The Ninth Councilor District Medical Society met at Mountain Home June 5th for the following program: "The Medical School in Relation to the Medical Profession in Arkansas," Hayden C. Nicholson; "Carcinoma in Situ," Charles R. Henry, and "Recent Advances in Ophthalmology," Dale Alford, all speakers of Little Rock. A luncheon preceded the scientific session.

The Craighead-Poinsett County Medical Society was addressed June 3rd by Thomas G. Johnston, Little Rock, on "Drug Allergy with Skin Manifestations," and Calvin R. Dillaha, Little Rock, discussion of the address.

WOMAN'S AUXILIARY NEWS

A luncheon meeting began the new year of the Washington County Medical Auxiliary, May 8th, at noon in the dining room at Ferguson's. The Auxiliary will not meet during the summer months but will convene again in the fall.

Reports on the state convention in Little Rock last month were given by the delegates and new officers elected as follows:

Mrs. Lawrence Siegel, president; Mrs. Spencer Brown, vice-president; Mrs. Joe Bill Hall, secretary, and Mrs. James Mashburn, treasurer.

Those attending the meeting from out of town were Mrs. John Dorman and Mrs. Ed Wheat, both of Springdale, and Mrs. Ronald Riggall of Prairie Grove.

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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• SPECIAL FEATURES

Committee on Cancer Control..... 43

Diverticulitis of the Colon 44

Tumors of the Brain and Spinal Cord in Children 47

• FEATURES

Tuberculosis Abstracts 50

Editorial 52

"Sparks from the Secretary" 54

Obituary 55

Personals and News Items 56

Proceedings of Societies 58

Public Relations 58

Book Review 58

The JOURNAL
OF THE ARKANSAS MEDICAL SOCIETY
PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. L AUGUST, 1953 No. 3

COMMITTEE ON CANCER CONTROL

C. A. ARCHER, JR., Chairman
Conway, Arkansas

THE FIRST PORT OF CALL

The responsibility for the detection of cancer is greatest with the general practitioner. It is indeed true that the life of the individual suffering with cancer rests with the first physician consulted.

The continuing program of the American Cancer Society in education of the public has served to increase the number of patients who seek medical advice upon the appearance of any of the danger signs of cancer. The public is reaching enlightenment through this educational effort and, in increasing numbers, seeks medical advice when suspicious signs and symptoms are noted.

This physician bears a grave responsibility when consulted as it is he who often determines the ultimate fate of the patient. The early case of cancer needs but intelligence, alertness and conscientiousness for its recognition by the able general practitioner. The advanced case presents no problem in recognition. Within the reach of the competent general practitioner are his speculum, his examining fingers, his vision; simple methods may serve to make a diagnosis. Further requirements for diagnosis, the biopsy, the smear, the X-ray examination, are readily at hand for consultation.

The physician's office is the true cancer detection center.

DIVERTICULITIS OF THE COLON*

HARVEY B. STONE, M.D.
Baltimore, Maryland

Diverticulitis of the colon has an interesting history. Although isolated references to such a condition may be found in the literature for many years back, it is only within the last two or three decades that the condition has assumed widespread clinical importance. The reason for its present general recognition is the development of the X-ray as a diagnostic method. With the increasing frequency of X-ray studies of the alimentary tract, it became evident that diverticula of the large bowel were by no means rare. In fact barium enema studies made on patients beyond the age of forty, show that a very considerable number, perhaps 50%, of such patients present more or less evidence of the development of diverticula. Following the recognition of this anatomical situation, clinicians began to realize that a good many instances of trouble developing in the diverticula were constantly occurring. In a paper published by Smithwick,[1] he estimated that 50% of people in middle life had diverticula, that 1 in 12 of those with diverticula had diverticulitis and that 1 in 10 patients with diverticulitis required surgical intervention. It will be seen from this that the condition is by no means rare and as this paper proceeds it will become quite apparent that it is by no means unusual for serious complications to arise. Those interested in the historical aspects of this subject are referred to a paper by Rowe and Kollman.[2]

In regard to the anatomy and etiology of diverticula, it may be well to repeat certain general facts which are well known but which sometimes are overlooked. Diverticula are usually divided into two groups depending upon whether they are congenital in origin or acquired. The whole alimentary tract from the pharynx to the anus has upon occasion been the locus for the development of diverticula. The congenital type usually presents all of the different structures normally found in the bowel wall, whereas the acquired type usually is lacking in the muscular layer and consists simply of mucous membrane and serosa. The congenital diverticula as a rule occur singly. The acquired type on the other hand are usually multiple and an individual may have large numbers of diverticula in his colon. Also there is a difference in the anatomical distribution of these two forms of diverticulum. The congenital type may occur anywhere but are perhaps more frequently met with on the right side. The acquired form also may occur anywhere but are unquestionably much more frequent in the sigmoid. There are various theories as to why people as they grow older have this tendency to develop diverticula of the colon. It is usually accepted that constipation or irregular bowel habits in general constitute a predisposing factor. It is also believed that as time goes on weak spots develop in the wall of the bowel and the continuous pressure from within gradually forces a protrusion of the mucosa beyond the normal contours of the gut. In short it is a herniation of the mucous membrane through the muscular wall. It has been suggested that diverticula are prone to occur at the points where the blood vessels penetrate through the muscular wall to supply the mucous membrane, thus producing a small area of weakness.

The symptoms associated with diverticula are entirely due to complications that occur and differ with the nature of these complications. It is desirable therefore to discuss briefly some of the pathological changes that may take place in diverticula and give rise to clinical disturbances.

It should be stated before discussing the details of pathological changes that the vast majority of cases of diverticulosis give rise to little or no disturbances in the individual's health. For a great many people the only way in which it is discovered that they have diverticula is the chance that they may have a barium enema study made, often for some completely unrelated reason. Of those cases in which there is some clinical disturbance, the larger number consist in mild attacks of inflammation involving the bowel wall about a diverticulum. As a result of either the trauma of contained fecal matter in the diverticulum or disturbances of its blood supply, the bowel becomes swollen, edematous and to some extent constricted by the inflammatory reaction. At this stage of the pathological process the patient frequently complains of pain and tenderness in the left lower quadrant of the abdomen, sometimes has a tendency to distention, constipation and perhaps nausea. There is apt to be a little fever and a slight elevation of the leucocyte count. These patients are best treated conservatively and as a rule surgery in such cases is not advisable. The patient should be put on a low residue diet, probably with rest in bed, and the use of mineral oil as an intestinal lubricant. It is

* Read before the Seventy-sixth Annual Session, Arkansas Medical Society, Little Rock, April 21, 1952.

probably helpful to give either sulfa drugs or antibiotics, or both, to reduce bacterial activity in the gut. It is advisable not to give large enemas or vigorous cathartics. The great majority of these cases will spontaneously recover under such a course of treatment. They should be advised however that recurrence of the symptoms is common and also that future attacks may bring with them the danger of more serious complications and the possible need for surgery. Some of these cases sustain a permanent fibrosis and constriction of the bowel wall that may entail partial obstruction.

In contrast to the large group of cases just described, there are others in which the pathological changes take a different and more dangerous course. Not infrequently the first symptoms of trouble may be caused by an abrupt unheralded perforation of a diverticulum into the free abdominal cavity. The writer has seen a number of such cases. There is an immediate development of a diffuse peritonitis with intense abdominal pain, rapidly spreading tenderness, well marked rigidity, chiefly in the lower abdomen, temperature running between 101 and 103½, and a leucocyte count which may read as high as 28,000. This is of course a picture of a rapidly spreading general peritonitis and is not particularly indicative of a ruptured diverticulum. In fact most such cases are usually regarded as acute ruptured appendicitis or sometimes an acute perforated ulcer of the duodenum or stomach. If the patient localizes his maximum tenderness in the left lower quadrant a clue is provided as to the true nature of the trouble. In one of my cases however the patient had a long sigmoid lying to the right of the pelvis and his maximum pain and tenderness was not far from McBurney's point. In such a case it is almost inevitable that the diagnosis should be acute appendicitis. The mistake in not recognizing the exact organ which has perforated is somewhat unfortunate because an incision may be made which does not give the best access to the real seat of the trouble. In such cases, however, prompt laparotomy is the proper course of treatment so that actually the patient is little harmed by a failure to recognize precisely the origin of the infection. As to the surgical treatment of these acute perforated conditions, a rather flexible attitude should be adopted by the surgeon. If, as sometimes happens, the perforation is easily found and easily brought up into the incision and the bowel about it is not intensively inflamed or friable, a closure of the perforation by suture is the obvious method to pursue. Perhaps more than half of the cases do not fall into this group. The location of the perforation may not be readily accessible for suturing. The gut wall may be so friable that efforts at suturing simply make a larger hole. In such cases as these no attempt should be made at closure of the opening. If the loop is long enough it can be exteriorized and left outside the abdominal surface temporarily. When the perforation is in deeply seated loops or at a point so fixed that it cannot be brought out, the damaged area should be isolated from the rest of the abdomen by packs or drains brought out through the incision. Most of these perforations can be taken care of by one or other of the methods just described and the patient will recover from the immediate danger.

In some of the cases thus recovered there may be no further trouble and the subsequent care of the patient consists simply in watchfulness to detect the possible occurrence of a similar episode in the future. However not all of them do this well. A very considerable number after recovery from the acute phase develop a fecal fistula leading from the abdominal surface to the hole in the bowel which will not heal spontaneously. These cases require a second operation, after the acute period has passed, to close the hole and heal the fistula.

The acute rupture of a diverticulum does not always occur into the free abdominal cavity. If the rupture has been preceded by a period of inflammation it may happen that the inflamed bowel will adhere to some adjacent structure. If the adherent structure is a solid substance such as the omentum or the plevic wall, when perforation does occur a walled-off abscess results rather than a general peritonitis. In this group of cases the whole tempo of the development of symptoms is much slower and of lesser intensity and a gradually forming tender mass can be felt in many cases. There is a protracted period of increasing soreness and pain with a prolonged but less rapid rise of temperature and a generally milder course. These abscesses require incision and drainage and usually a secondary operation to deal with the damaged bowel which will be discussed more fully a little later. Still another type of gradual perforation occurs when the gut adheres to a hollow viscus like the bladder or another loop of bowel. When this takes place perforation will then form a fistula, such as a sigmoid vesicle fistula, that brings with it a set of special symptoms. Thus a patient with a sigmoid-vesicle fistula will often himself observe that he is passing gas and fecal matter when he empties his bladder and such an occurrence is pathogno-

monic evidence of what has happened. These cases too require elaborate surgical treatment that will be next discussed.

The group now to be considered includes those cases with long continued low grade recurrent symptoms and those survivors of acute episodes who have been left with a residue such as an external draining sinus, or thickened partially obstructed gut, or an internal fistula between the colon and some other viscus. Also certain cases of chronic diverticulitis begin to cause urinary symptoms such as pain on voiding and frequency. This indicates the probability that there may be an impending perforation into the bladder and is a definite reason for prompt radical operation. Another occurrence of moment is passage of blood from the rectum. Here the question of differential diagnosis between diverticulitis and carcinoma of the bowel arises. An indurated mass, partial obstruction and somewhat similar X-ray findings may be present in either condition. There used to be an assumption that bleeding was indicative of carcinoma. This can no longer be accepted. It is true that the passage of blood is far more frequent in cancer cases, but there is no question that at times marked hemorrhage may be found with diverticulitis. In many cases, the surgeon, at operation, may be unable to decide definitely that a given mass in the sigmoid is cancer or diverticulitis. The coincidence of the two conditions has apparently been exaggerated. An interesting study of this question has recently been published by Rowe and Kollmar.[2]

This rather inclusive group of cases has been treated by a multitude of different kinds of operations in the past. This is a group that presents many difficulties in judgment and in technique and I should like to discuss in some detail certain of these problems, as they present the major clinical difficulties in this whole category of patients.

It has been more or less of an accepted procedure to perform a colostomy well proximal to these chronic advanced lesions. Usually the stoma is placed in the transverse colon. Following this a waiting period of a number of months is allowed to elapse in the hope that the lesion will subside under the conditions of rest and that nature would produce a restoration to normal. Although this method is often satisfactory, there are reasons why it cannot be accepted as a universally successful procedure. Not infrequently the lesion beyond the colostomy does not resolve; the bowel segment remains damaged, and if the colostomy were closed there is every reason to expect a recurrence of the original symptoms. Furthermore this method does not provide an absolute diagnosis of the disorder and there is always the chance that what was regarded as a diverticulitis may actually be a malignant process. In such a case the long period of delay would almost surely be fatal. For such reasons as these there has come about a feeling among some surgeons that a more direct attack on the site of the trouble is to be desired. This point of view has been championed particularly by Dr. Smithwick of Boston.[1] He conducted a follow-up study of a number of patients treated at the Massachusetts General Hospital and came to the conclusion that in a large percentage of the patients handled by colostomy and waiting, there were subsequent episodes due to the diverticulitis and that some of them were very serious in their consequences. Accordingly he advocates that the doing of a colostomy when necessary should be simply the first step toward the definitive removal of the diseased segment of gut. In a matter of a few weeks following the colostomy, he advises reoperation with resection of the involved loop of sigmoid and an end to end anastomosis. The colostomy can then be closed after the anastomosis has had an opportunity to heal.

The present writer is in accord with the principles that Dr. Smithwick has sponsored. In general it seems that patients in whom there is a thickened, obstructed, and damaged loop of gut or a fecal fistula, or a visceral fistula will be better off if these advanced and chronic lesions are actually removed. A case in point illustrated the application of this principle in an extreme example of diverticulosis complicated by carcinoma. The patient was an elderly woman who had had symptoms, extending back over several years, of slight attacks of diverticulitis. These included episodes of abdominal pain, constipation, tenderness in the left lower quadrant and more recently the passage of blood at times. A number of these attacks had subsided and periods of relatively good health had intervened. Recently however the condition had seemed to be worse and did not remit. An X-ray study showed most extensive diverticulosis involving the sigmoid, the descending colon, and extending to the left portion of the transverse colon for a distance of several inches. In addition there was the surprising discovery that the patient also had a definite carcinoma of the descending colon. This patient was operated on without a preliminary colostomy and a resection of the whole left side of the colon was carried out in one stage. The transverse colon was then anastomosed end to end to the stump of the recto-sigmoid. The patient recovered and

although some years later she developed abdominal difficulties from adhesions she is still living and there has been no evidence of recurrence of the carcinoma.

Cases such as these make it evident that there is a group in which it is possible safely to carry out a primary resection and anastomosis without the protracted surgical care which is involved in preliminary colostomy, then resection and then closure of the colostomy. It is of course important that great care and judgment be exercised in the selection of suitable cases for this direct one stage attack. The X-ray will usually afford important evidence as to the cases that belong in this group. The point that I wish to emphasize here is not the technical details of how to operate but it is the principle that Smithwick[1] brought out in his paper. This principle is that we should modify our former willingness to wait long periods of time in the hope of a spontaneous cure of diverticulitis. Enough experience and enough skill have been secured to warrant a change to the new position described above, namely, prompt and direct attack with removal of the disease in those cases where the nature of the trouble is such that extensive alteration has taken place in the bowel as a result of diverticulitis.

There is an extensive bibliography dealing with this subject that I shall make no effort to quote in detail. I would refer those interested to the paper by Dr. John J. Morton, Jr.,[3] published in 1946, that contains a very comprehensive survey of the whole field and an excellent analysis of the literature up to that time.

SUMMARY

It is the purpose of this paper to emphasize the following points in the consideration of diverticulitis:

First: Diverticulosis is a very common condition in middle life without clinical importance unless complications develop.

Second: Diverticulitis also is a fairly common occurrence.

Third: Most cases of diverticulitis are relatively mild and require medical rather than surgical treatment and offer a good prognosis.

Fourth: Diverticulitis may present serious complications of various types including acute perforation, chronic thickening and obstruction, abscess formation, fistula formation and association with malignancy.

Fifth: With these complications surgery is usually necessary.

Sixth: The acute emergencies require prompt and limited surgical attack for the purpose of limiting the spread of infection.

Seventh: The chronic extensive complications are now best treated by direct and fairly early removal of the segment of bowel that is involved.

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TUMORS OF THE BRAIN AND SPINAL CORD IN CHILDREN*

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Dr. William E. Ladd, the distinguished pediatric surgeon, used to teach his students that pediatrics is general medicine except that the percentages are different. Following this injunction, it may seem that tumors in general and those of the central nervous system in particular occur in children but so infrequently that their identification would be a matter only for the specialist. Experience has accumulated to show convincingly that such is not the case. Tumors of the brain and spinal cord occur with considerable frequency throughout infancy and childhood. Furthermore, a considerable percentage of them can be completely cured and many more greatly alleviated by the use of surgery and roentgen therapy in their early stages. One of the greatest responsibilities in diagnostic medicine is the recognition of a treatable lesion.

The most disconcerting and important characteristic of tumors of the central nervous system in infancy and childhood is the fact that their initial signs and symptoms are usually those also produced by the commonest diseases of childhood. The possibility of tumor, therefore, is not entertained until the lesion is advanced unless a high degree of suspicion exists. The signs of increased intracranial pressure which so often herald the onset of an intracranial tumor in the adult are not often seen, at least in the early stages, in the young child. This is because the sutures are not closed and there is a less rigid restriction on the volume of the cranial contents. As the tumor enlarges it produces wider separation of the sutures. The child appears hydrocephalic; the possibility of tumor should be considered whenever a young child has a progressively enlarging head.

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* Presented at a meeting of the Pulaski County Medical Society, Little Rock, Ark., May 4, 1953.

Most often the hydrocephalus will be due to some other cause, but it is important to recgonize the smaller group in which the enlargement of the head and ventricular dilatation are due to a tumor, since the tumor may be eradicable and the therapy for hydrocephalus due to other causes is for the most part unsatisfactory. Papilledema does occur in children with intracranial tumors, and one of the reasons for their recognition as quickly as possible is the preservation of vision. The evaluation of projectile vomiting in an infant or young child is almost impossible because of the multitude of causes from which it can arise. It, therefore, has very much less importance as a sign of intracranial tumor in children than in adults. This is also true of convulsions.

The presenting signs of intracranial tumors in infancy and childhood begin with hydrocephalus and continue through such states as failure to gain weight, convulsions, behavior problems, failure to walk or unsteadiness of balance, and progressive mental deterioration.

Tumors of the spinal cord, also, differ in their mode of onset from those of adult life. Their recognition at an early stage is imperative because about three-quarters of them can be completely eradicated and cured by surgical means, leaving little or no neurological deficit unless operation has been postponed until destruction of the spinal cord tissue has occurred. In only a very small percentage of children with spinal cord tumors is the diagnosis made before admission to a hospital for special study.

By far the commonest initial diagnosis in spinal cord tumors is that of old poliomyelitis. The patient enters the hospital with paralysis of one or more extremities and careful questioning uncovers an illness, perhaps in the nature of a cold, shortly before the paralysis was first noted. It is true that the vast majority of these patients will be suffering from old poliomyelitis. The indication for careful study with tumor in mind is found in those patients in whom the paralysis is progressive. In poliomyelitis the tendency of the paralysis is to remain stationary or to improve, but in tumor of the spinal cord the paralysis advances slowly or rapidly, depending upon the nature of the tumor. Another presenting finding of some interest and frequency is atypical meningitis, especially when due to a lowgrade organism. As discussed below, there is a considerable group of tumors of childhood, both intraspinal and intracranial, which arise from congenital rests, and which contain cysts filled with keratinized epithelium. Organisms of low virulence which may from time to time be circulating in the bloodstream lodge in these masses of sebaceous material and grow as in a culture medium. They are discharged periodically through the capsule into the bloodstream, setting up a meningitis. Antibiotic therapy may clear up the inflammatory reaction temporarily, but a new discharge of organisms will start the sequence once more. It is worthwhile, then, to think of the possibility of tumor in instances of atypical meningitis refractory to antibiotic therapy.

Since this material is being presented by a neuropathologist, it seems natural to consider some special features of several histological types of tumor as they occur in infancy and childhood, and to point out some differences between their behavior at an early age and in adult life. If one compares a list of all histological diagnoses made on tumors of the central nervous system in children with a similar list of those found in adults, it will be seen that the two lists coincide fairly closely insofar as intracranial tumors are concerned, though the percentages are different. With intraspinal tumors, however, the variety of histological types is far greater in children than in adults. Space prevents the consideration of more than a few important groups and those showing the greatest differences in the two periods of life have been selected for discussion.

Astrocytoma: This tumor can appear in any part of the central nervous system at any age of life. In children, however, it is the commonest intracranial tumor and is far more common in the cerebellum than above the tentorium. The cerebellar astrocytoma of childhood usually appears as a mural nodule in a cyst, from which can be aspirated at operation a pale yellow protein-rich fluid. These mural nodules are among the most readily resectable gliomas. Operative mortality is low and the expected duration of life after operation approaches that of a normal individual. It is not necessary to remove the lining of the cyst beyond the mural nodule, for it is composed of reactive, rather than neoplastic, tissue. While astrocytomas are slowly growing tumors, the cyst may enlarge quite rapidly. The onset of symptoms, therefore, is sometimes abrupt, making it most unwise to treat any tumor of the posterior fossa by X-ray without a preliminary biopsy. Astrocytomas of the cerebrum are far less common than those of the cerebellum in children. They are diffuse and infiltrative lesions. While there may be microcysts within the tumors, the large cyst with mural nodule is extremely rare in the cerebrum. The margins of these diffuse cerebral astrocytomas are difficult to identify surgically. Recurrence after operation, therefore, is frequent and the ultimate prognosis less favorable than it is

with astrocytomas of the cerebellum. This is also true with astrocytomas within the spinal cord substance, which share their inaccessibility to surgical attack with most other histological types of intraspinal gliomas.

Gliablastoma Multiforme: Gliablastomas multiforme are perhaps the commonest gliomas of the cerebral hemispheres in adulthood. This type of tumor occurs occasionally in childhood but is distinctly uncommon and when it is seen it is usually in the brain stem or cerebellum, sites in which it is rare in adults. The prognosis is very poor, not only because of the unfavorable speed of growth, but also because of the inaccessible locations in the pons and medulla.

Medulloblastoma: This tumor is most typically a midline cerebellar tumor of childhood, though it may involve the vermis or the cerebello-pontine angle. Medulloblastomas occur in adults but are relatively infrequent. In children, this tumor is next in frequency to astrocytoma, but carries a far graver prognosis. It is extremely responsive to roentgen therapy but recurrence is rapid and the ultimate prognosis is very poor. If the circulation of cerebrospinal fluid can be kept free by partial removal of the tumor surgically or by short-circuit operations in conjunction with the roentgen therapy, the child will have a longer period of relatively normal existence followed by a shorter terminal phase, than would be the case without treatment. It is questionable that any form of therapy significantly affects the total duration of life. A few very long survivals have been recorded; these must at present remain unexplained, for they cannot be related to any special treatment or to variation in histological character.

Ependymoma: Tumors arising from ependymal tissue occur at all ages but create a special problem among the posterior fossa tumors of children. The symptoms caused by ependymomas, medulloblastomas, and astrocytomas, are sometimes indistinguishable before operation, and emphasize once again the importance of biopsy before treatment is started. Ependymomas are best treated surgically. The results are less favorable than they are in astrocytoma, and more favorable than in medulloblastoma.

Meningioma and Neurofibroma: Intracranial meningiomas, frequent and favorable tumors in adults, are extreme rarities in children. Even along the spinal cord they are seen very seldom. On the other hand, neurofibroma of the intraspinal portion of the spinal nerves are relatively often seen in children. The relative percentages of adult life are, therefore, exactly reversed.

Congenital Tumors: The clinical syndromes and life history of the craniopharyngioma are so well known as to need no comment. This is also the case with chordoma, though chordoma is a far less common tumor. On the other hand, the frequency and behavior of teratomas of the central nervous system is much less well recognized. They are seen with relative frequency in the pineal region, or in the cerebral hemispheres, but become more common in the posterior fossa. They and the closely related dermoid cysts together constitute almost a third of the intraspinal tumors. It is these tumors which are especially likely to give rise to the syndrome of the atypical meningitis discussed above. Their location can sometimes be suggested by the presence of a sinus tract opening on the skin which leads directly to the tumor. The skin over them may show atypical capillaries or pigmented spots. These are important indications when such a tumor is suspected. While such findings are of more diagnostic help in dealing with intraspinal tumors of this sort, they have also been seen in association with the same histological types of tumor in the posterior fossa. These lesions are very favorable for surgery if the tumor is within the spinal cord, but much less so when it is intracranial. Surgical efforts must be directed toward as complete extirpation as possible if the tumor is in the cerebral hemispheres, or toward a palliative short-circuit operation when it is in the pineal region. In the spinal cord, however, evacuation of the cyst and removal of as much tumor as possible without endangering the spinal cord structures will lead to a very favorable result and probable permanent cure. The pathologists can help the surgeon to make the diagnosis when the tumor is exposed and even before it is biopsied by demonstrating keratinized epithelial cells in the aspirated fluid.

SUMMARY

Tumors of the central nervous system in infancy and childhood are relatively common. Their recognition is difficult because the classical signs of increased intracranial pressure as seen in adults are greatly modified in young children. Many tumors are masked as hydrocaphalus, atypical meningitis, or old poliomyelitis. The early recognition of central nervous system tumors in infancy and childhood is of great importance, because a considerable portion of them are favorable for surgical attack. The percentage of permanent cures is greater in this age group than in adults. Since tumors of the brain and spinal cord in children often produce signs suggesting the initial diagnosis of incurable conditions, it is important not to overlook the possibility of a treatable, and often curable, lesion.

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TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

ENERGY COSTS OF VARIOUS PHYSICAL ACTIVITIES IN RELATION TO PULMONARY TUBERCULOSIS

By Edward E. Gordon, M.D., Archives of Physical Medicine, April, 1952.

In the management of pulmonary tuberculosis, the question often arises as to how much physical activity a given patient may assume and yet safely avoid stress with possible reactivation of his disease. Precise definition of the limit between tolerance and stress is not possible, for neither are the relevant factors fully understood nor are measurements feasible. However, the intensity of physiological work, that is, the energy expended in the performance of a task, can be obtained. While this method does not reveal the working capacity of an individual, it has the following advantages: (1) the degree of cardiovascular response roughly parallels the intensity of work in terms of energy expenditure; (2) respiratory responses are easily determined with the measurement of work intensity. Thus, a rough index of the magnitude of cardio-respiratory stress imposed upon a patient is afforded by a determination of the work intensity of a given task. The intensity of energy expenditure is measured in terms of oxygen consumption per minute. On this basis energy costs of some common activities were determined to provide the clinician with a knowledge of their general orders of magnitude. This knowledge in conjunction with the clinical data could serve as a guide in judging the wisdom of allowing a patient to engage in an activity when apparently indicated on clinical grounds.

As a preliminary study to ascertain whether different individuals would display equivalent results in performing a given task, mainly healthy subjects were tested. Nine normal female and four normal male subjects were used; as the investigation progressed, four male patients on ambulatory status were included in the study. These exhibited no impairment of pulmonary function and presented the usual criteria of apparently arrested disease for four to six months. Such subjects probably afforded values for working energy cost comparable to those for healthy subjects, since they were on an ambulatory status and in a better state of physical fitness than clinically active patients. No comparison was made between healthy subjects and patients, as the latter comprised too small a group.

Fifty-three experiments were carried out with the normal group and five with patients. Tasks selected were those applicable to patients either on a modified bed-rest program or on limited ambulation. Since the rate of work influences the energy expenditure, it was controlled whenever possible; otherwise the optimum tempo for the individual was allowed.

This work is concerned only with the intensity of the rates of energy cost of various activities and not with the total daily energy expenditure. It is believed that the factor of intensity is as important as the total sum, since a short burst of relatively high energy cost may be injurious to the tuberculous patient by exceeding a critical level above which physiological stress may cause pathologic changes. For example, a physician rightly hesitates to allow showering for patients still in a dubious clinical status; the four or five minutes of activity is insignificant in the total daily expenditure, yet the high intensity of physiological stress engendered even briefly casts doubt on the wisdom of allowing it. A knowledge of the intensity levels of energy costs may contribute to the final judgment regarding the prescription of certain activities for a patient. A compilation of energy costs is presented, therefore, in which appear observations from these experiments and those reported in the literature. In the table are grouped values for activities of daily living and for work therapy.

The levels of energy cost assigned to the activities studied may err on the low side. A majority of the subjects were normal, healthy individuals, who were trained in the tasks performed. This might have operated to give results lower than those attained by patients newly assigned to physical activity. However, since work is contraindicated for acutely ill patients, and the tasks utilized can be quickly learned, it is probable that the patients would closely approximate the values obtained in this study.

ENERGY COST OF SELF-CARE AND WORK ACTIVITIES

Activities	Per cent rise above the basic metabolic rate	Source
Sitting	17-25	Harvard Fatigue Laboratory Orr
Standing relaxed	38	Harvard Fatigue Laboratory
Conversation	38	Harvard Fatigue Laboratory
Dressing and undressing	43-53	Sherman, Brody, et al.
Personal toilet	38	Harvard Fatigue Laboratory
Showering	242-377	Author
Eating a meal	38	Harvard Fatigue Laboratory
Writing a letter	75	Harvard Fatigue Laboratory
Writing a letter	20	Author, Kestner, et al.
Strolling	75	Harvard Fatigue Laboratory
Walking slowly (2.6 m.p.h.)	160	Sherman
Using wheel chair (1.2 m.p.h.)	138	Author
Walking moderately fast (3.75 m.p.h.)	290	Sherman
Walking downstairs	320	Sherman
Walking upstairs	1330	Sherman
Hand Sewing	40	Sherman
Knitting (23 stitches/min., sweater)	50	Sherman
Making link belt (reclining):		
stiff leather (4 links/3 min.)	39	Author
soft leather (4 links/3 min.)	27	Author
Leather tooling (reclining)	24	Author
Leather punching and lacing (reclining)	22	Author
Chip carving (reclining)	45	Author
Copper tooling (sitting)	41	Author
Weaving—hand loom (2 operations/min.)	50	Author
Weaving—floor loom (2 operations/min.)	99	Author
Chisel carving (sitting)	122	Author
Tailoring	75-105	Sherman, Farkas, et al.
Typing	20-50	Kestner, et al.
Typing rapidly	82	Sherman
Bookbinding, light	56-92	Kestner, et al.
Bookbinding, partly heavy	105-120	Sherman, Kestner, et al.
Wood work on sanding lathe	119	Author

RESOLUTIONS

Whereas it has pleased Almighty God in His divine wisdom to remove from our midst Dr. J. W. Nicholls, who died at the Helena Hospital July 6, 1953, and whereas

In the passing of our brother doctor the medical profession has lost an earnest and valuable member.

Dr. J. W. Nicholls was born June 6, 1876, in Town Creek, Alabama. He was graduated from the medical department of Vanderbilt University in 1903. He practiced medicine for ten years in Grand Lake, Arkansas, and moved to Helena in 1913, where he remained active in his profession until his death.

He was many times an officer in the Phillips County Medical Society and was also a member of the Arkansas Medical Society and the American Medical Society. He was for many years the official doctor for the Missouri Pacific Railroad. He was a member of the Presbyterian Church and a Mason. He was the coroner for Phillips County for sixteen years.

Therefore, be it resolved that the Phillips County Medical Society has suffered a real loss in the death of Dr. Nicholls and that we extend our heartfelt sympathy to his relatives and friends and ask that these resolutions be spread upon our minutes, a copy sent to his near relatives and a copy to the Journal of the Arkansas Medical Society in Little Rock.

Respectfully submitted,
Alfred H. Berger, M.D.,
Secretary,
Phillips County Medical Society.

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★ Editorial ★

ADDRESS OF PRESIDENT McCORMICK

Excerpts from the inaugural address of Edward J. McCormick to the House of Delegates of the American Medical Association in which he outlined a nine-point program for continued improvement in the medical care set-up for the nation, will be of much interest to county societies and physicians.

"1. The distribution of doctors is a problem. Much has been done by medical organizations to solve it. Placement services are now in existence in 37 states. Of these, 32 are operated by medical societies. It is important to the future of medicine that every community have access to a physician. Medicine must actively aid those communities which are trying to attract doctors.

"2. Over 600 of our county medical societies now have 24-hour emergency call services. I urge all others to support such a system.

"3. Every medical society must have a strong and fearless mediation committee to hear patients' complaints. These must not be whitewash committees. They must be true to the purpose of their founding by reprimanding and disciplining physicians found guilty of exploiting their patients. Only in this way can public confidence in medicine be maintained.

"4. Physician and hospital relationships must be clarified and steps taken toward mutual cooperation. I advise the formation of physician-hospital committees by state and county medical societies to work toward better relations in local communities. This has already been done with some success in some states.

"5. Every county society should become an active unit in the nation-wide effort to develop and expand voluntary health insurance. We must find ways of providing protection against catastrophic illness and coverage of older age groups.

"6. Too many physicians have been isolationists within their communities. Local societies should encourage each individual member to participate in some civic undertaking. We physicians should be rendering health leadership in all service clubs, fraternal organizations, parent-teachers groups, church associations and unions.

"7. Every doctor must be brought to realize that good public relations begins in his or her office—that the way in which they treat patients reflects for good or ill on the entire profession. Medical societies are frequently hampered in their efforts to build public understanding by the doctor who overcharges, the doctor who rudely refuses to answer a night call no matter how urgent, or the doctor who keeps patients waiting for hours in his reception room without any explanation.

"8. There are some newspaper and radio people who honestly believe some of the untruthful charges which have been made against medicine. All county and state societies should make continued efforts to develop a close association with writers for press, radio and television.

"9. There is a need for unity within the profession. I have noticed a distressing regression toward petty internal wrangling, charges and counter-charges, and divisive activities by various groups within the profession."

THE DOCTOR DRAFT LAW

Public Law No. 84, 83rd Congress, signed June 29th, extends until July 1, 1955, a revised version of the "Doctor Draft Law." Because of general interest in this law, some of its provisions are briefly explained here. The measure will:

(1) Extend the effective date of the "Doctor Draft Law" until July 1, 1955;

(2) Retain the maximum ages specified in existing law: Registration, age 50; Liability for induction, age 51;

(3) Continue in effect the four priorities established by existing law with the following amendments:

(a) All service performed since September 16, 1940, as an officer or as an enlisted man, with certain exceptions which will be outlined later, will be credited as service. At the present time doctors in priorities 1 and 2 only receive credit for service performed "subsequent" to deferment or participation in a Navy V-12 or Army Specialized Training Program during World War II;

(b) The length of service required to qualify for priority 4 for doctors who were deferred or educated at government expense during World War II is reduced from 21 to 17 months. As a result of this provision a substantial number of doctors will be reclassified from priority 2 to priority 4;

(c) Establish the following new periods of service for men recalled to active duty or inducted pursuant to the "Doctor Draft Law":

Previous Service	New Period of Duty
9 months or less	24 months
9 to 12 months	21 months
12 to 15 months	18 months
15 to 21 months	15 months

(d) Removes the liability for induction or recall to active duty, except in time of war or national emergency hereafter declared by Congress, for those men in priority 4 who have had 21 months or more of service since September 16, 1940.

(4) Define "active duty" and " active service" to include:

(a) Full-time duty in the active service of the United States since September 16, 1940, in the Army, Navy, Air Force, Marine Corps, Coast Guard or United States Public Health Service, including reserve components;

(b) Time spent during World War II in work of national importance by conscientious objectors;

(c) Service performed before September 2, 1945, in the Armed Forces of countries which were allies of the United States during World War II; and

(d) Service performed as a physician or dentist by United States citizens employed by the Panama Canal Health Department between September 16, 1940, and September 2, 1945.

(5) Exclude from consideration as "active duty" periods spent in a Navy V-12 or Army Specialized Training Program; in a military internship, residency or senior student program; in military service for the sole purpose of undergoing a physical examination or while engaged in active duty for training entered into after June 29, 1953;

(6) Authorize the appointment of medical officers in grades commensurate with their professional education, experience or ability. This section is intended to provide for uniform treatment with respect to the ranks of all doctors called to active duty irrespective of whether they had previous military service;

(7) Continue until July 1, 1955, the authority to provide the "Special Pay" of $100 per month for doctors in the Armed Forces. This section also extends the class of persons eligible for such pay to include veterinarians;

(8) Authorize the commissioning of non-citizens of the United States as officers in the Armed Forces;

(9) Terminate automatically, upon completion of 12 months or more of service subsequent to September 9, 1950, the reserve commissions of all physicians taken into service by operation of the "Doctor Draft Law." Upon completion of this same service medical reservists recalled to active duty will be given an opportunity to resign their commission. Such persons, whether registrants or reservists, shall not be liable thereafter for recall or reinduction except in time of war or national emergency hereafter declared by the Congress;

(10) Reenact the present provisions of law which permit the deferment of those individuals who are essential to the national health, safety and interest;

(11) Authorize the national, state and local medical advisory committees to the Selective Service System, in addition to their present authority, to make recommendations with reference to the deferment of (a) registrants engaged in residency training, (b) those serving on faculties of medical and certain other schools and (c) those engaged in essential laboratory and clinical research;

(12) Extend until July 1, 1955, the authority of the President to recall medical reservists to active duty involuntarily;

(13) Be retroactive in effect. Those men already in uniform who would have benefited from the new changes in the law will, upon filing an application, be eligible for release from service as soon as possible and in no event later than 90 days after the effective date of the Act (June 29, 1953).

In considering the over-all effect of the new law it should be noted that the major changes involve greater recognition of prior military service. The result is that a particular registrant, by being able to take advantage of the various new provisions, may either (a) become exempt from liability for service, (b) be placed in a priority less vulnerable to immediate call, (c) be subject to a reduced term of service, or (d) effect a severance of military status within 90 days upon application or after the completion of his period of service by being either discharged or permitted to resign.

These amendments will remove many of the inequities which now exist. Many of the recommendations made by the American Medical Association in its testimony before the Armed Serv-

ices Committees of the House of Representatives and the Senate were accepted. Those which were modified or rejected are:

(1) The Association recommended that the liability for registration and call-up of veteran physicians in priority 4, as well as the involuntary recall of medical reservists in this category, be terminated as of July 1, 1953.

The law, as enacted, excuses from further liability those registrants and reservists in priority 4 with 21 months or more of service since September 16, 1940. This amounts to substantial acceptance of the Association's recommendation since between 85 and 90% of the physicians in priority 4 have 21 months or more of service.

(2) The Association recommended that the second period of duty be limited to 12 months for a registrant or a reservist who had 12 or more months of previous service.

The law, as enacted, establishes a staggered period of service (see item 3 (c) above).

(3) The Association recommended that all accrued or terminal leave as well as travel time be included in computing total active duty.

Such credit was not allowed. The Armed Services Committee of the House of Representatives indicated that the reduction from 21 to 17 months to qualify for priority 4 was intended to take care of inequities of this type.

(4) The Association recommended that the reserve commissions of doctors called into service by operation of the "Doctor Draft Law" should not be vacated automatically upon completion of required service. It was the belief of the Association that doctors should be given the option of retaining or resigning their commissions. It was further recommended that reserve officers in the Navy and Marine Corps with service in World War II be permitted to resign their commissions immediately if they wished to do so.

The recommendations of the Association in this regard were not accepted.

(5) The Association recommended that any extension of the "Doctor Draft Law" be limited to one year.

The law was extended for 2 years.

You will be interested to know that the Council on National Emergency Medical Service has authorized the preparation of a brief and simple brochure explaining the provisions of the new "Doctor Draft Law," as well as the pertinent administrative regulations of the Armed Forces and the Selective Service System. It is planned to circulate this booklet through state and county medical societies for the information and benefit of individual physicians. If there are any particular facets of this subject which you believe should be stressed, we would appreciate receiving your comments and suggestions.

"*SPARKS* FROM THE SECRETARY"

May 13 and 14, 1953

This Wednesday we traveled to Morrilton and had a most pleasant visit with the St. Anthony Staff which is practically the Conway County Medical Society. Dr. H. E. Mobley was our host and we had a most wonderful dinner, provided by Sister Hilda, with Dr. Mobley and Charlie Archer, the Vice-Councillor from the second district. Yours truly presented a program of gynecological nature including a film on the diagnosis of cancer of the uterus followed by a very practical and fascinating talk by Brooksher on the use of I-131 in toxic goiter. Bill has certainly stolen the march on the rest of the radiologists around here by his work in this field of Nuclear Fission Therapy.

The next day we traveled to Walnut Ridge as a part of the program for the first district Medical Society. Here we heard a most excellent program by Dr. Kettle of Kansas University Medical School, on Surgery of Heart Disease, by Dr. Myers of Memphis on Gall Bladder surgery. Yours truly gave the same program that I had given at Morrilton the night before. Due to previous commitments, I did not get to join the social gathering and dinner following the meeting but I enjoyed seeing all those fellows from District I and most especially was pleased to see several young fellows from Paragould there.

Jim Kolb writes that he and Fount, Brooksher and a few others have organized and chartered the Scott County Medical Society of Waldon. This is an excellent piece of work and certainly is to be highly commended for work for this procedure.

OBITUARY

JAMES W. NICHOLS, age 77, died at Helena July 7th after a short illness. A graduate of Chattanooga Medical College in 1902 he had practiced in Arkansas for almost 50 years, the last 40 being spent in Helena. He was a member of the Phillips County Medical Society, the Arkansas Medical Society, the Masonic lodge and of the Presbyterian church. He had served several terms as coroner of Phillips county. Surviving are two sons and two daughters.

HUGH HOUSTON, age 81, died at his home in West Fork June 30th after a sudden illness. Born in Mississippi, October 22, 1871, he graduated from Birmingham Medical College in 1910 and first located in Rudy, later moving to West Fork. He was a member of the Washington County Medical Society, the Arkansas Medical Society and of the Altus Masonic lodge. He was a local surgeon for the Frisco lines. Surviving are his wife and four sisters.

CRAWFORD MONROE PEELER, age 72, of Pangburn, died of a heart attack July 7th. Born April 12, 1881, at Hiram, he graduated from the University of Nashville Medical Department in 1909 and had continuously practiced in Pangburn since that time. He was a past-president of the White County Medical Society, a member of the Arkansas Medical Society and of the First Methodist church. Surviving are his wife, a daughter and a son, Dr. Malcolm M. Peeler, of Jonesboro.

LUDOLF N. BOLLMEIER, age 54, died at Hot Springs National Park July 6th. Born at Marissa, Illinois, he graduated from Saint Louis College of Physicians and Surgeons in 1921 and began practice at Hot Springs National Park in 1929, later locating with the Institute of Psychoanalysis in Chicago, returning to Hot Springs National Park in 1944. He was a member of the Garland County Medical Society, the Arkansas Medical Society, the International Psychoanalytic Association, the American Psychiatric Association, the American Pyschosomatic Medical Association and of the Lutheran church. He was a consultant to the Veterans Hospital, North Little Rock. Surviving are his wife and five daughters.

ROYAL J. CALCOTE, age 59, Little Rock, died June 28th. Born at Ruston, Louisiana, he attended Louisiana Polytechnic Institute and graduated from the University of Arkansas School of Medicine in 1918. He was a member of the staffs of the Baptist, the Missouri Pacific and Saint Vincent's hospitals, professor of ophthalmology in the University of Arkansas School of Medicine, a diplomate of the American Board of Ophthalmology and a fellow of the American Academy of Ophthalmology and Otolaryngology. He served as treasurer of the Arkansas Medical Society for a number of years, resigning this office to enter the naval medical corps during World War II. He held a commission as captain in the naval medical reserve. Surviving are his wife and two sons, one of whom, Dr. R. A. Calcote had been associated with him in practice until recalled to military service.

ELMER H. ELLSWORTH, age 74, died at Hot Springs National Park June 2nd. Born in Hot Springs National Park, he graduated from Rush Medical School in 1904 and had continuously practiced in Hot Springs National Park. He was senior master and life member of Hot Springs Lodge No. 62, F. & A. Masons, a past high priest of Hot Springs Chapter No. 47, Royal Arch Masons, a past grand master of the Grand Council, Royal and Select Masters of Arkansas, a past commander of Commandery No. 5, Knights Templar, and a member of Saint Luke's Episcopal church. Surviving are his wife and two daughters.

ALBERT S. BUCHANAN, age 72, Prescott, died July 4th. Graduating from the University of Arkansas School of Medicine in 1905, he studied at New York Polyclinic and in London, opening the Greeson Sanatorium in association with his brother, the late G. A. Buchanan, in 1913; the Park Sanatorium in 1919 and the Cora Donnell Hospital in 1924. He had served as president of the Arkansas Medical Society, the Nevada County Medical Society, the Prescott Rotary club, the Tri-County Medical Society and as secretary of the State Medical Board of the Arkansas Medical Society. He was a fellow of the American College of Surgeons. Surviving are his wife and two daughters.

EDWIN B. SWINDLER, age 69, died at Coral Gables, Florida June 21st after a long illness. Born at Dawson Springs, Kentucky, he graduated from Memphis Hospital Medical College in 1912 and located at Stuttgart in 1913. He was a charter member and past-president of the Stuttgart Rotary Club, a past-president of the Arkansas County Medical Society, a past-president of the Stuttgart School Board, a member of the board of stewards of the Methodist church and a member of the Masonic bodies including the Scottish Rite. Surviving are his wife, a daughter and a son.

PERSONALS AND NEWS ITEMS

Newly located in Arkansas are Fred C. Inman, at McCrory; A. E. Andrews, Jr., at Paragould; Curtis Johnson, at Tuckerman; Chas. Walls, at Des Arc; Wayne Lafferty, at Hope; Charles G. Swingle, at Marked Tree; Tom Dunn and Will Weaver at Hampton, G. M. Cazan, Brinkley, and J. F. Gartman, at Hazen.

H. T. Smith has been appointed a commissioner for a proposed improvement district at McGehee.

J. B. Jameson has been selected as "Doctor Softball" by the Camden Softball League.

V. J. Crain, Wynne, has been called to active duty with the army medical corps.

Louis F. Hubener, Blytheville, has entered on a dermatological residency at Johns Hopkins.

Louise Stout has joined Drs. Ledbetter for practice at Jonesboro.

Dr. and Mrs. C. A. Archer, Conway, spent a recent vacation at Point Clear, Alabama.

C. A. Archer has been elected a director of the Conway Rotary club.

W. R. Scarborough has been elected president of the Clarksville Rotary club.

Chas. Walls has located at Cotton Plant.

Curtis Johnson has located at Tuckerman.

Stephen D. McMillion has located at Rison.

D. A. Rhinehart, Wm. J. Rhinehart and Joseph A. Norton have formed an association for the practice of radiology with offices at 843 Donaghey Building, Little Rock.

Morton Wilson has joined Carl L. Wilson for the practice of urology with the Holt-Krock Clinic at Fort Smith.

Joe Verser has been elected medical advisor to the Harrisburg post, American Legion.

O. V. Smith has moved from Truman to Hardy.

Jonathan P. Shermer has located for practice at 901½ Garrison Avenue, Fort Smith.

J. F. Kelsey is associated with T. P. Foltz at Fort Smith for practice in obstetrics and gynecology.

Dr. and Mrs. W. F. Adams, Fort Smith, spent a June vacation on the Mississippi Gulf coast.

"R. O. Norris Day" was held June 19th at Tuckerman honoring Dr. R. O. Norris.

Corbin L. Crouch has located at McGehee for practice.

Elmer Smith has located at Dermott for practice.

MARRIED—On June 20th, Daniel H. Autry, Little Rock, and Miss Effie Powell, Powell, Mississippi.

Registered at the New York session of the American Medical Association were: R. B. Robins, Camden; D. W. Goldstein, Fort Smith; Euclid M. Smith, Hot Springs National Park; G. C. Coffey, Hot Springs National Park; Perry Dalton, Camden; T. H. Jones, Waldo; V. O. Lesh and Ruth Ellis Lesh, Fayetteville; L. H. McDaniel, Tyronza; M. S. Craig, Batesville; R. C. Dickinson, Horatio; Eva F. Dodge, Little Rock; A. M. Grasse, Calico Rock; R. M. Hamilton, West Memphis; A. T. DePalma, Fayetteville; Dorothy Goetze, Hot Springs National Park; Ulys Jackson, Harrison; T. E. Williams, Newport; E. C. Gillespie, Little Rock; P. G. Henley, Smackover, and W. R. Brooksher, Fort Smith.

C. F. Boulden, Fort Smith, has been elected a director of the Sebastian County Chapter, American Red Cross.

Chas. R. Henry, Little Rock, has been appointed a member of the Council on Rural Health, American Medical Association.

D. A. Mohler has moved from Brinkley to Forrest City.

C. Lewis Hyatt has been elected president of the Monticello Rotary club.

Dr. and Mrs. J. L. Pickens, Rogers, spent a July vacation in Colorado.

Dr. and Mrs. Robert Thompson, Fort Smith, spent a recent vacation in Idaho.

Clinical Results* with Banthine® Bromide

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22 Published Reports Covering Treatment of 1443 Peptic Ulcer Patients with Banthine

Comprising the reports published in the literature to date which give specific facts and figures of the results of treatment

AUTHORS	No. of Patients	Chronic, Resistant to Other Therapy	TYPES OF ULCERS				RELIEF OF SYMPTOMS (Chiefly Pain)				Surgery or Complications[1]	Side Effects Requiring Discontinuance of Drug[2]	EVIDENCE OF HEALING			
			Duodenal	Jejunal	Stomal	Gastric	Good	Fair	Poor	No Report			Complete	Moderate	None	No Report
Grimson, Lyons, Reeves	100	100	93	7			80	11	4		5		47		19	29
Friedman	15	15	14			1	5		4	6[3]			2			13
Bechgaard, Nietsen, Bang, Gruetund, Tobiassen	26	26	21			5	16	4	6				8	6	12	
McHardy, Browne, Edwards, Marek, Ward	162		162				136	12	11		3	1	14	9	7	129
Segal, Friedman, Watson	34	34	34[4]				14	13			7	2	5		8	14
Brown, Collins	117	99	117				97	7	8		5	8	55	9	8	40
Asher	77		65		7	5	52	9	16			16		9	21	47
Rodriguez de la Vega, Reyes Diaz	5	4	5				4		1					3	2	
Winkelstein	116	116	102	8		6	102		14				53		18	45
Hall, Hornisher, Weeks	18	18	18				11		1	6[5]			18			
Maier, Meili	38	38	24			14[6]	27	7	4[7]				10	2	5	21
Meyer, Jarman	25	18	25				21		4							25
Poth, Fromm	37	37	37				33	3	1				33	3	1	
Plummer, Burke, Williams	41	41	41				36		5				38		3	
McDonough, O'Neil	104	100	104				63	10	31			11	4		11	89
Broders	60	60	58		1	1	35	19	6				10	1	49[8]	
Legerton, Texter, Ruffin	11		11				11									11
Holoubek, Holoubek, Langford	76	69	76				35	27	10		4	10	26		10	36
Ogborn	42		39	2		1	42[9]									42
Shaiken	48	48	48				33	10	3		2		33	10	3	
Johnston	145	145	145				143		2			2	143		2	
Rossett, Knox, Stephenson	146		141			5	146					4[10]	53			93
TOTALS	*1443*	*968*	*1380*	*17*	*8*	*38*	*1142*	*132*	*131*	*12*	*26*	*54*	*552*	*52*	*179*	*634*
PERCENTAGES		*67.8*	*95.6*	*1.2*	*0.6*	*2.6*	*81.3*	*9.4*	*9.3*			*3.7*	*70.5*	*6.6*	*22.9*	

1. Not included in tabulations.
2. Included in "Relief of Symptoms" as "Poor" and in "Evidence of Healing" as "None."
3. Four had no symptoms when Banthine therapy was begun.
4. Of which seven were penetrative lesions and five partially obstructive.
5. No symptoms were present in four.
6. Two with symptoms only; no demonstrable ulcer.
7. Three were psychopathic patients and one had a ventricular ulcer of the lesser curvature.
8. Roentgen findings after treatment period of two weeks; forty-seven had duodenal deformity.
9. All returned to work within a week.
10. In these four, after relief of symptoms, Banthine was discontinued because of urinary retention.

During the past three years, more than 250 references to Banthine therapy in peptic ulcer and other parasympathotonic conditions have appeared in medical literature. Of these reports, 22 have presented specific facts and figures on the results of treatment in a total of 1,443 peptic ulcer patients, 67.8 per cent of whom were reported as chronic or resistant to other therapy. These results are tabulated above and show:

"Good" relief of symptoms was obtained in 81.3 per cent of the 1,405 patients on whom reports were available.

"Complete" evidence of healing was obtained in 70.5 per cent of the 783 patients on whom reports were available.

In all but 9.3 per cent, relief of pain was "good" or "fair." In all but 22.9 per cent, evidence of healing was "complete" or "moderate."

During treatment, 26 patients required surgery or developed complications other than ulcer which required discontinuance of the drug before results could be evaluated.

Of the remaining 1,417 patients, only 3.7 per cent experienced side effects sufficiently annoying to require discontinuance of the drug.

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*Volume containing complete references, with abstracts of 39 additional reports, will be furnished on request by

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PROCEEDINGS OF SOCIETIES

The IV Congress of the Pan American Medical Women's Alliance will be held at the Beekman Towers Hotel, New York, from September 24, through October 1, 1953. The morning hours will be given over to a scientific program of general interest. There will be round-table luncheon discussions with leaders speaking Spanish and English. Through the sponsorship of leading New York Medical Women those interested in a special field will have opportunities to attend clinics of their choice. Hotel reservations should be made direct with the hotel. Registration fee is $10.00.

Jackson County Medical Society has elected the following officers: President, H. M. Baird; Vice-president, Jabez F. Jackson and Secretary-treasurer, John D. Ashley, Jr.

Dr. and Mrs. F. H. Jones, Piggott, entertained the members of Clay-Greene County Medical Society at dinner June 11th.

A large group including all the physicians, their families, their office personnel, hospital nurses, hospital employees and members of the Drew County public health staff enjoyed a picnic and ice cream supper at the Monticello City Park the evening of June 24th.

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

PUBLIC RELATIONS

Physician
Patient
Personal

EMERGENCY CALL SERVICE

Some type of medical emergency call service is necessary in all communities, both urban and rural. Relatively few such services are operating in Arkansas except in the larger cities.

Emergency call systems are important for several reasons. First, our patients must have adequate medical care in case of sudden injury or illness regardless of the time or place. Some people need the services of a physician at nights, on Sundays and on Thursday afternoons. Secondly, a systematic handling of emergencies affords the doctor some protection from the strenuous hours of modern practice.

The details and mechanics of any given method of handling emergencies will depend upon the number of doctors co-operating, the area to be covered, and whether or not a central hospital is available. For instance, in smaller communities where a hospital is located doctors may agree to take turns in handling emergency cases, and the public should be notified to go to or telephone the hospital should an emergency arise and their own family physician not be immediately available.

After the emergency call system is organized and put into operation it is then necessary to notify the public of what to do in event of an emergency. This may be done through the local paper or through notices in the doctor offices, the hospital emergency room and direct instruction to patients.

Each county society or similar group should put into operation an emergency service and they should so instruct their patients.

BOOK REVIEW

An Atlas of Surgical Exposures of the Extremities: By Sam W. Banks, M.D., Associate Professor of Orthopedic Surgery, Northwestern University Medical School; and Harold Laufman, M.D., Ph.D., Associate Professor of Surgery and Director of Experimental Surgery, Northwestern University Medical School. 391 pages with 552 illustrations on 179 plates. Philadelphia and London: W. B. Saunders Company, 1953. Price $15.00.

This book is a valuable addition to the library of the practitioner setting forth authoritative therapy in a lucid and concise manner.

Current Therapy 1953—Latest Approved Methods of Treatment for the Practicing Physician. Editor: Howard F. Conn, M.D.; Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, Robert H. Williams. 835 pages. Philadelphia and London: W. B. Saunders Company, 1953. Price $11.00.

This is an unusual text describing and illustrating surgical exposures of the various areas and structures of the extremities.

The Physical Examination of the Surgical Patient: By J. Englebert Dunphy, M.D., F.A.C.S., Associate Clinical Professor of Surgery, Harvard Medical School; and Thomas W. Botsford, M.D., F.A.C.S., Clinical Associate in Surgery, Harvard Medical School. 326 pages with 188 figures. Philadelphia and London: W. B. Saunders Company, 1953. Price $7.50.

Proper emphasis placed on physical examination of the patient. Illustrations add materially to the usefulness of the text.

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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SPECIAL FEATURES

Committee on Cancer Control.... 59

Acute Diffuse Interstitial Fibrosis of the Lungs; Report of Case.. 60

Pseudo Leukemic Reaction to Pertussis—Report of Two Cases in Identical Twins.... 64

FEATURES

Editorial.... 67

Public Relations.... 67

"Sparks From the Secretary".... 68

Medical Society and Auxiliary Honor Couple at Picnic.... 69

Tuberculosis Abstracts.... 70

Obituary.... 71

Pope County Pioneer Doctors.... 71

Histories of Pioneer Doctors in Yell County.... 72

Clay County Pioneer Doctors.... 75

Southern Auxiliary Planning Streamlined Convention.... 75

Personals and News Items.... 76

Proceedings of Societies.... 76

The JOURNAL
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COMMITTEE ON CANCER CONTROL

C. A. ARCHER, JR., M. D.
Chairman

Encouraging as are the results in the cure of cancer at this time, and statistics indicate that this improvement is gradual and consistent, modern medical science has not attained the foreseeable survival rate that may properly be expected. The reasons for that lie with the practicing physician and with the public.

We know today that early cancer is curable in the majority of cases. Other diseases of similar seriousness as to life have been controlled and, in some instances, practically eradicated. No such hope is yet offered for the victim of cancer, largely because their control and eradication have been accomplished without action on the part of the afflicted individual. Responsibility on the part of the public did not have a part.

The public must have knowledge of cancer. The individual can be brought to a realization that with him in large degree rests the responsibility of seeking medical care when the symptoms of cancer present themselves.

The American Cancer Society has now conducted its intensive educational campaign for many years. Its results are beginning to manifest in an increased awareness on the part of the public of the nature of cancer, in knowledge of the "Seven Danger Signals;" in acceptance of facts, and in a more prompt appearance for examination and treatment when suspicious symptoms appear.

Responsibility in the control of cancer is individual. The American Cancer Society uses all known methods for education and arousing the interest of the public and the individual. The doctor must take a more active part in this campaign of education. He, as well as all citizens, must share in this public responsibility. It might even be that the advice and guidance of the physician, together with his full support of the efforts of the American Cancer Society would contribute more than his professional skill.

ACUTE DIFFUSE INTERSTITIAL FIBROSIS OF THE LUNGS; REPORT OF CASE

STEWART M. WILSON, M. D.
Rogers

In 1944 Hamman and Rich[1] described 4 cases of rapidly developing interstitial pulmonary fibrosis causing an extreme degree of dyspnea and cyanosis. Myocardial insufficiency occurred in the single patient surviving the initial stages of the disease. Three of these cases were seen in a 2-year period from 1931 to 1933. The fourth case was not encountered until 1943. Their review of the literature revealed a similar case reported by Kneeland and Smetana.[2] It was reported as one of several cases of bronchopneumonia of unusual character and undetermined etiology. In addition, however, the pulmonary arteries showed characteristic lesions of periarteritis nodosa.

Postmortem studies of these 4 cases convinced Hamman and Rich that they were dealing with a distinctive but previously undescribed entity. They listed the pathological peculiarities of this condition as follows: "(1) a type of inflammation (edema, hemorrhage, few leucocytes) which differs from that of ordinary pneumonia produced by pyogenic bacteria; (2) the enlargement of the lining alveolar epithelial cells; (3) the necrosis of the alveolar and bronchiolar epithelium; (4) the formation of a hyaline membrane that lines the alveoli; (5) the marked edema and fibrin deposits in the alveolar walls; (6) the extensive diffuse and progressive interstitial proliferation of fibrous tissue throughout all lobes of both lungs, associated with focal organization of intra-alveolar hemorrhage; (7) the presence of eosinophiles in the interstitial tissues in three of four cases; and (8) the absence of stainable bacteria in the lesions." In January, 1953, an editorial in the Journal of the American Medical Association[3] recapitulated these criteria but omitted the seventh, the presence of eosinophiles in the interstitial tissue.

In 1951 Rubin, Kahn and Pecker[4] reviewed the literature and discovered that a total of 13 cases had been described and confirmed by postmortem examination and added a case of their own. This excellent article contains abstracts of all reported cases in addition to a complete bibliography. Since that time additional cases have been reported by Callahan and his co-workers[5] and by Silverman and Talbot.[6] These, with the one described below make a total of 17 cases. Spain[7] states that 7 such cases have occurred at Bellevue Hospital but does not give descriptions of any of them.

Duration of the disease, from the onset of symptoms to death, has varied from 31 days to three and one-half years. It is questionable, therefore, whether the adjective, "acute," should be used in describing all of these cases. In this case the course of the disease was approximately 17 months. The term, "acute," has been retained for the sake of classification.

CASE REPORT

E. J. M., a 68-year-old white male was admitted to the Veterans Administration Hospital, Fayetteville, Arkansas, on July 22, 1949. He complained of weight loss, general malaise, poor appetite, easy fatigability and frequency of palpitation. A slight cough had begun about one year previously and had become slightly but progressively more severe and more productive. He estimated that he had lost 25 to 40 pounds.

There was a history of a diagnosis of active tuberculosis in 1920. At that time he spent several months at complete bed rest at home. In 1941 sudden weakness followed by tarry stools resulted in a diagnosis of both duodenal ulcer and myocardial infarction. Vague symptoms of epigastric distress and bloating preceded this episode for several months. Since that time there had been occasional fleeting recurrences of substernal pain, not radiating. There were no recent gastrointestinal symptoms and no orthopnea or paroxysmal nocturnal dyspnea. Following service in the Army in World War I the patient spent his entire adult life as a messenger in a stock exchange and at no time was there any exposure to silica or metallic dust.

Physical examination revealed a tall, slender, emaciated, elderly man, who appeared chronically ill. The blood pressure was 100 mm. of mercury systolic and 60 diastolic. The pulse was regular and the rate 90 per minute. Bilateral arcus senilis was present. Examination of the ears, nose and throat showed no abnormalities. The chest was slender, flat and bony with moderate flaring of the costal margins. He appeared moderately dyspnoeic during the examination, the respirations being rapid and extremely shallow.

The percussion note was normal over the entire thorax. A few fine rales were heard over both bases and did not clear after coughing. The heart sounds were of fair quality. The second pulmonic sound was louder than the second aortic sound. A minimal systolic murmur was heard over the aortic and mitral areas but was not transmitted. The radial arteries were sclerotic and tortuous. The posterior tibial pulses were barely palpable. The prostate gland was moderately hypertrophied. There was minimal kyphosis of the upper dorsal spine. The abdomen was scaphoid and no masses were palpable. There were minimal varicosities of the lower extremities.

Course in Hospital: During the patient's approximate 3 months of hospitalization he was afebrile but continued to complain of weakness and loss of appetite. Exertion caused extreme dyspnea but he was fairly comfortable at rest. He received purely supportive therapy except for a 10-day course of penicillin treatment which did not result in improvement.

Laboratory and X-ray findings: Routine laboratory work including complete blood count, urine analysis and blood Kahn were within normal limits. The initial sedimentation rate was 30 mm. per hour. This was repeated on several occasions and fluctuated between 24 and 35 mm. per hour. Numerous sputum examinations were negative for acid fast organisms. These included both 24 and 72 hour concentrated specimens. Gastric lavage and guinea pig inoculations were also negative. Two electrocardiograms 6 weeks apart were similar and showed changes suggestive of old anterior wall infarction. A roentgenogram of the chest made on July 25, 1949, showed very distinct clear cut "spider web" type of mottling throughout both lung fields from the apex to the base. Cavitation could not be seen. There appeared to be no changes in the pleurae and the hilar lymph glands were not enlarged or calcified. A second roentgenogram on August 16, 1949, showed no change.

The patient was discharged from the hospital on October 13, 1949. The diagnoses at that time were:

(1) Pulmonary fibrosis, severe, etiology, undetermined.

(2) Pulmonary tuberculosis, history of, arrested.

(3) Arteriosclerotic heart disease, manifested by previous myocardial infarction and anginal syndrome.

(4) Hypertension of lesser circulation due to disease of lungs.

(5) Benign prostatic hypertrophy.

(6) Generalized arteriosclerosis.

Course at home following discharge from hospital: The patient was seen at home on numerous occasions. His condition now began to deteriorate much more rapidly. Dyspnea became greatly increased, the inspirations being extremely rapid and shallow. Slight cyanosis of the lips and finger tips became noticeable. Minimal clubbing of the fingers appeared. The second pulmonic sound became tremendously accentuated. The cough became more severe and there was occasionally blood streaked sputum but never gross hemoptysis. Showers of coarse crackling rates could be heard over the entire thorax. Moderate pedal edema and enlargement and tenderness of the liver occurred. The patient died in his sleep on December 18, 1949, slightly more than 2 months after being discharged from the hospital.

Autopsy findings: An autopsy was performed on the day of death. The body was that of an extremely emaciated white male. Arterial embalming had been completed and there were embalmer's incisions in the right supraclavicular and femoral regions. There was slight clubbing of the fingers and moderate pitting edema of the feet and ankles.

The heart showed dilatation and hypertrophy of the right ventricle. The coronary arteries and aorta showed advanced atherosclerosis. The myocardium showed an area of scarring of the anterior wall and fibrous obliteration of the anterior descending branch of the left coronary artery.

The pleural cavities contained no excess fluid and the surfaces were moist and glistening except in the right apex and left base where a few fibrous adhesions were found. The lungs were firm in consistency and grossly showed a lobulated appearance, the septa being depressed and formed of increased fibrous connective tissue.

Microscopic sections showed extreme variation in different fields. In some areas the alveolar architecture was completely replaced by extremely vascular fibrous connective tissue. Many of the capillaries were congested. In one small area the alveoli appeared essentially normal. In others the alveolar septa were greatly thickened by edema, fibrin deposits and proliferation of vascular fibrous connective tissue showing scattered areas of round cell infiltration. Within the areas of fibrosis an occasional alveolus could be recognized in which the alveolar space was completely filled with vascular connective tissue. There were num-

erous recent intra-alveolar hemorrhages. Some of the alveoli contained no exudate of any kind. Others contained amorphous basophilic material, cellular debris and a few large mononuclear cells. In a few places fibroblasts and new capillaries could be seen invading this material. Some of the alveolar walls were torn and the alveoli coalesced to form emphysematous spaces.

The alveolar epithelium was enlarged. In some places it appeared cuboidal in character. In others it was replaced by a hyaline membrane. In other areas there was necrosis with fading of the nuclei and desquamation of the epithelium. Some of the terminal bronchioles were dilated and contained amorphous basophilic material, cellular debris and occasionally purulent material. In some areas the bronchiolar epithelium showed metaplasia with piling up of the cells.

Fig. 1. Roentgenogram of the chest showing fine, sharply defined mottling involving both lungs from apex to base. The right lung appears to be somewhat more densely involved than the left.

The walls of the arterioles were thickened. Necrosis and desquamation of the bronchiolar epithelium was noted in several places. Hilar lymph nodes were somewhat enlarged and microscopically showed dilatation of the sinusoids and proliferation of the sinusoidal epithelium.

The liver was enlarged and showed gross and microscopic evidence of central lobular necrosis from chronic passive congestion.

The remainder of the autopsy findings were not remarkable.

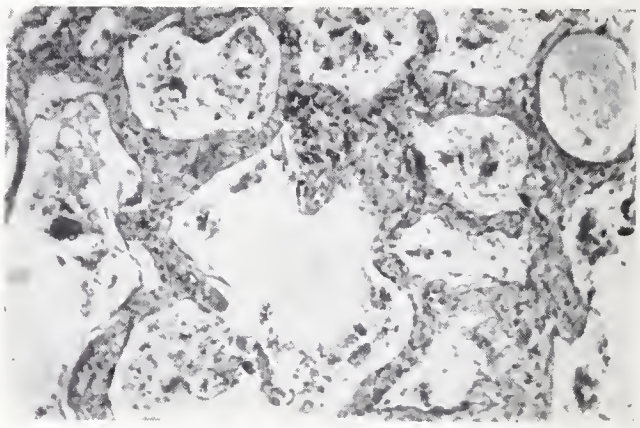

Fig. 2. Low power view showing thickening of the alveolar walls, desquamation and necrosis of lining epithelium. At upper right of center the epithelium is replaced by a hyaline membrane. Coalescence of alveoli to form an emphysematous space is shown. Cellular debris and amorphous material are seen in the alveoli.

COMMENT

The case described above meets the criteria of Hamman and Rich.[1] Clumps of bacteria were not seen although special bacterial stains were not made. Eosinophilic infiltration was not seen. Emphysema, bronchiectasis and metaplasia of bronchiolar epithelium were also seen. These changes have been described by several authors[4] subsequent to the original description of the disease.

The etiology of acute interstitial fibrosis of the lungs is still unknown. Hamman and Rich[1] specu-

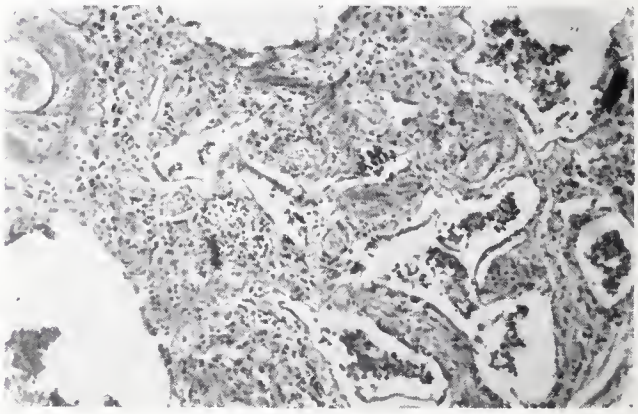

Fig. 3. Low power view showing more advanced stage of the disease. Here the alveolar walls are much more thickened than in Fig. 2. Thickening is caused by increased fibrous connective tissue, edema, fibrin deposition and round cell infiltration. Note the numerous congested capillaries. The lining epithelium is also thickened. At upper left is an arteriole with thickened walls. At lower left is a bronchiectatic cavity.

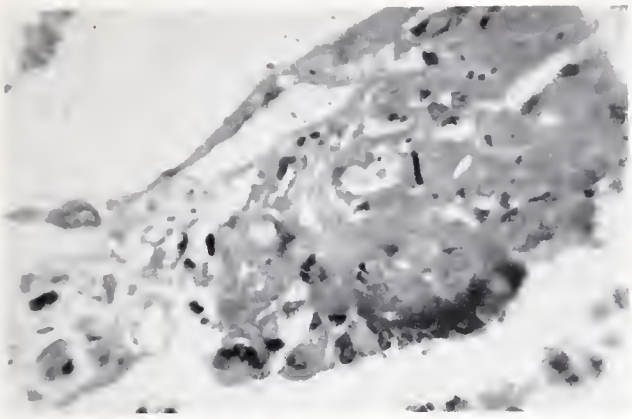

Fig. 4. High power view showing deposition of fibrin in interstitial tissue.

lated that influenzal pneumonia, chemical irritants or hypersensitivity may be causative factors. Rubin, Kahn and Pecker[4] postulated a virus etiology and suggest that not all cases are fatal. The author has nothing to add to these speculations. Silverman and Talbot[6] recently established the diagnosis in vivo by means of lung biopsy. Cortisone therapy resulted in no improvement either clinically or microscopically.

SUMMARY

A case of diffuse interstitial fibrosis of the lungs of the type described by Hamman and Rich is presented. This brings the total number of reported cases to seventeen.

Acknowledgment: The author is grateful to the Veterans Administration Hospital, Fayetteville, Arkansas, for an excellent summary of the period of hospitalization and to Dr. A. S. Koenig for the microscopic diagnosis and photomicrographs.

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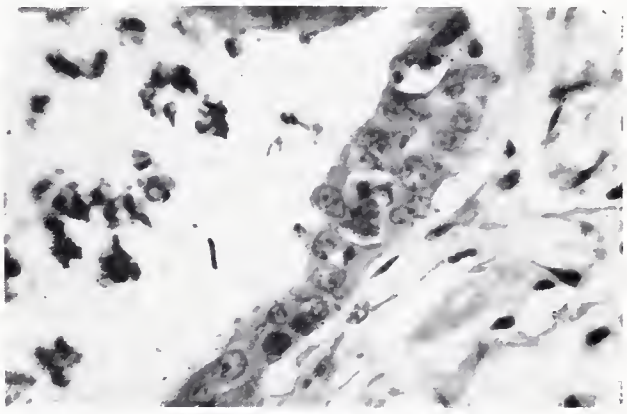

Fig. 5. High power view showing metaplasia of bronchiolar epithelium lining a bronchiectatic cavity.

PSEUDO LEUKEMIC REACTION TO PERTUSSIS REPORT OF TWO CASES IN IDENTICAL TWINS

JOHN M. GOWDY, M. D.
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The occurrence of extreme leukocytosis indistinguishable from the type of blood count in leukemia was first reported by Froelich[1] in 1897.

Since that time a number of cases have been reported and it is stated that counts of 20,000 or 30,000 per cubic millimeter and occasional counts of 50,000 are seen, however, counts exceeding 100,000 per cubic millimeter are very rare and only a few such cases have been reported.[2]

It is the purpose of this paper to report two cases of extreme leukocytosis, one of which exceeded 100,000 in twin children.

REPORT OF CASES

Case 1. Bobby, male, age 1 year, of 1/2 degree Indian extraction, was admitted to the Talihina Medical Center on July 2, 1951. Chief complaint was cough and general malaise of approximately five days duration. Mother states that there are four other children, and that all of these children have been ill previously with a disease diagnosed by local physician as pertussis, and characterized by paroxysms of coughing with generalized symptoms of upper respiratory and bronchial infection without any severe illness. The characteristic whoop was noted in all cases.

About five days before admission, the child became ill with the same type of symptoms and his condition had grown gradually worse until 24 hours before admission when he developed a slight rattling in the chest, appeared to have considerable respiratory distress and was examined and found to have an elevation of temperature at which time hospitalization was advised and he was brought to the Talihina Medical Center.

The past medical history is essentially negative, the mother stating that he has never been ill, other than the present illness.

Family history other than the exposure to four cases of pertussis is negative.

PHYSICAL EXAMINATION: This patient is a well-developed, well-nourished Indian male, appearing to be about the stated age of one year. The patient appears to be acutely ill and seems to be suffering from some respiratory distress. The throat is somewhat injected.

Examination of the chest: Inspection and palpation are negative. On auscultation, fine crepitant rales are heard throughout the right lung. The left lung is negative.

No abnormalities of the cardiovascular system are noted. Examination of the lymphatic system reveals shotty small palpable nodes in both axilla and the cervical region. None of these nodes are very large and all are freely movable. The remainder of the examination is negative.

Laboratory Data: Chest x-ray showed infiltration in the right lower lung field. Blood count on admission was 128,000. The following day, the blood count was 138,000 with a distribution of 41 polys, 51 ly., 5 mono, and 2 eos.

HOSPITAL COURSE: A diagnosis of pertussis and bronchial pneumonia was made and the patient was placed under oxygen therapy because of the respiratory distress. He was started on subcutaneous fluid, however, since he showed an adequate intake it was discontinued on the second hospital day and all nutrition was supplied orally without any vomiting or ill effects. Aureomycin was begun in the dosage of 50 mg. every six hours and a cough preparation consisting of a mixture of Calcidrine and syrup of Histadyl, equal parts, was administered every four hours.

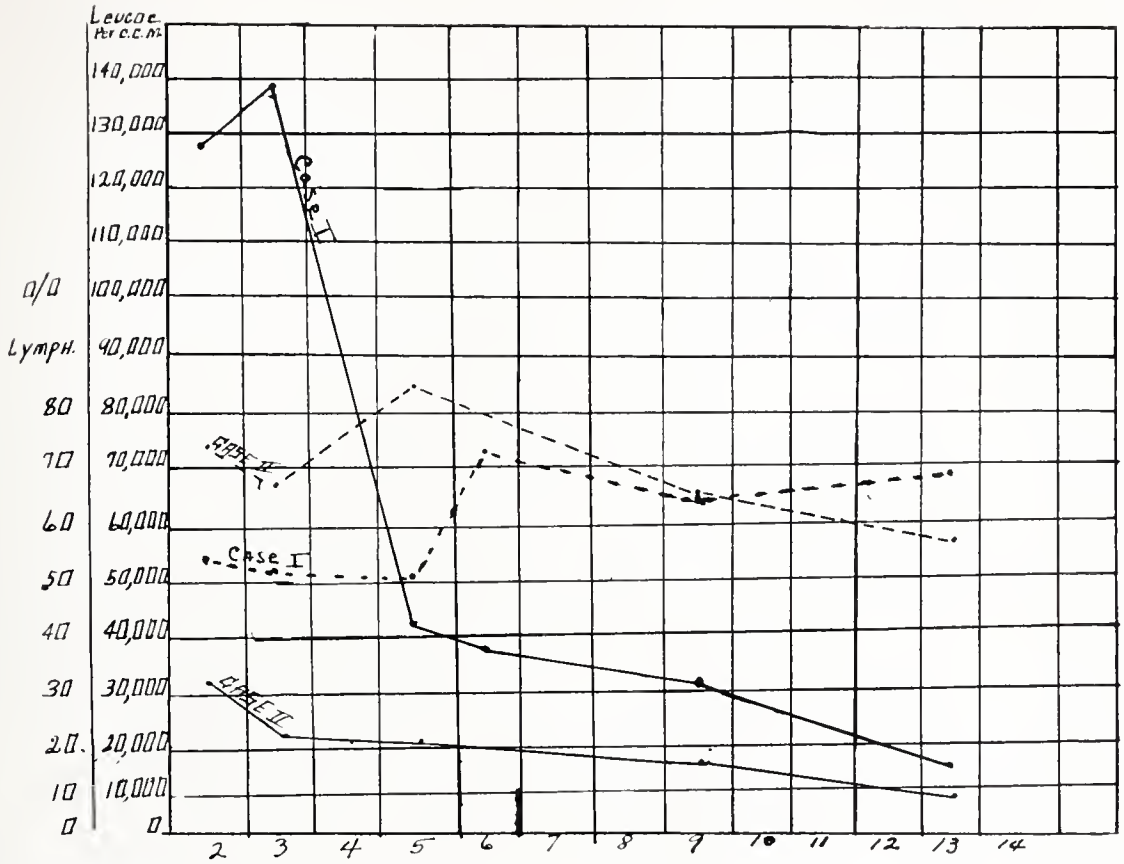
The temperature, on the day following admission, rose to a level of 103.4, however, later readings on the same day showed a normal temperature which continued except for a slight rise to 100 on the ninth hospital day.

The graph of the leukocyte count together with the proportion of lymphocytes is given in Chart I. The count, after rising to 138,400 showed a precipitant drop to 42,200 with a distribution of 44 polys and 56 lymphs. On the fifth day, count was 37,600, eighth day 31,600; 16,500 at the end of the week and all subsequent counts were within normal limits.

On the sixth hospital day, the oxygen was interrupted for periodical intervals. The patient's condition continued satisfactory and it was then discontinued. Improvement continued and au-

[1] Froelich, J. Jh. Kinderhielk, 44:53 (1897).
[2] Pearson, W. J. and Newn, G. H. Lancet 2:354.

Case I — Chart I



reomycin was stopped on the 11th hospital day. His condition from this time on was quite satisfactory. Observation of the child during hospitalization disclosed frequent episodes of typical respiratory whoops characteristic of pertussis. Attempts were made to culture pharyngeal secretions, however, these cultures yielded only gram positive cocci in clumps resembling staphylococci.

Case 2. The other case to be reported was the twin brother of the first case. He became ill at the same time, however, his condition was not serious. Aside from slight injection of the pharyngeal mucosa and a few very small palpable axillary lymph glands, there are no abnormal findings in this case.

HOSPITAL COURSE: He was placed on aureomycin, 50 mg. every four hours and given the cough preparation of Histadyl and Calcidrine. Temperature was 103 at time of admission but fell to a level of 100 on the first and second hospital days and was then normal thereafter except for a slight diurnal variation which was within normal limits. His count at the time of admission was 32,000 with a distribution of 23 poly, 77 lymphs. This count fell the following day to 24,200, then 23,600 and the fifth hospital day was 16,600. All subsequent counts were within normal limits. Chest x-ray on admission was negative. Repeat x-rays were made on both patients which showed clearing of the infiltration previously described in the first case and continued absent of pathology in the second. Clinical improvement paralleled the white count response.

Due to an incidental illness of the mother at this time, it was necessary to hospitalize these children for approximately a month following complete recovery and their condition became and remained entirely satisfactory throughout this period. Occasional paroxysms of coughing in both cases were noted up to the 16th hospital day after which no further coughing was noted.

On a review of the records at the Talihina Medical Center, it was found that seven cases of pertussis have been admitted since July, 1948, in addition to the two cases presented above.

Of these cases, 5 showed normal to slightly elevated white counts.

One case, a 10 month old female infant, had an admission count of 51,400 with 71% lymphocytes. On discharge, the count was 8,600 with 80% lymphocytes. In this case organisms resembling pertussis were found in throat smears.

In the remaining case, a two year old male infant, elevation to 27,200 with 75% lymphocytes was noted. The clinical diagnosis was pertussis, however, laboratory confirmation was not obtained.

COMMENT

Leukocytosis up to the level of 10,000 with lymphocytosis up to 50% is characteristic of blood counts in children, the development of leukocytosis and lymphocytosis is decreasing with the age of the child until adult levels are reached during adolescence.[4] Cases of leukocytosis in pertussis have been reported in the literature regularly since Froelich's observation in 1897.[3] Extremely high counts are usually associated with the complication of bronchopneumonia as was Case 1.

We did not note any particular relation between the lymphocytosis and the clinical disease in Case 1. However, in Case 2, the lymphocytosis roughly paralleled clinical progress. This is typical of the cases of which there is a leukmoid reaction. The count is customarily between 30 and 50 thousand with lymphocytosis to 60-80%.

Gold and Bell[5] give an average of 21,650 with 75% lymphocytes in the uncomplicated paroxysmal stage. With the complication of acute bronchitis the average count is 19,810 with 63% lymphocytes. In other types of complications such as otitis media, peritonsillar abscess and complications with other childhood diseases, measles, etc. the average count was not sufficiently high to suggest lymphatic leukemia. However, in this case with the extremely high white count and generalized palpable lymph nodes, one is forced to consider the question of leukemia. We feel that although bone marrow studies were not made, the excellent response to aureomycin therapy and a continued normal level for the blood count within a period of observation of one month, is sufficient to rule out leukemia.

Other conditions in addition to pertussis have been associated with pseudo-leukemic blood counts, however, this condition has been reported much more commonly in pertussis than in any other condition. Mitchell and Friedman[6] report a case which the blood count was 233,000. They list also conditions in which counts over 100,000 have been found exclusive of leukemia and whooping cough as carcinoma, gangrenous appendix, diphtheria, lobar pneumonia and spleno-hepatic cirrhosis.

In addition to the elevation of the white count, a decreased sedimentation rate has been reported as diagnostic of the early state of pertussis.[7] Sedimentation rates were not done in these cases.

Prognosis up to the development of the antibiotics has been quite bad in these cases. In a series of 62 cases surveyed by Albert and Jongco[8] mortality was 42 cases of 62—a mortality rate of 67%. Practically all cases reported before 1935 with a blood count over 100,000 terminated fatally.

Fukushima[9] in 1928 reported the production of leukocytosis in the rabbit by injection of whooping cough bacilli. He found that the lipoid component of the bacilli was responsible for this effect.

Lenzi[10] noted that a leukemoid reaction is evidence of severe toxemia. He suggests that it is due to a toxic stimulation of the bone marrow. Bone marrow studies in his cases showed hyperplasia of the granulocytic series which persisted in some cases even after the peripheral blood picture had returned to normal. This may possibly be due to an acceleration of the process of maturation. Some cases are probably due to hereditary or constitutional predisposition.

Bierman[11] et al have suggested that leukemia may be due in some cases to decreased removal of the white cells from the blood by the capillaries of the lung. In cross transfusion experiments, they were able to show that in normal individuals leukocytes were removed by some mechanism in the lungs. Pertussis is, of course, a respiratory disease and furthermore leukemoid reaction is most commonly seen in the presence of pneumonia in combination with whooping cough. No evidence of localization in the bone marrow of pertussis infection has been reported, pertussis osteomyelitis being unknown. While remote effects by a humoral or toxic agent are quite possible, in view of the findings of Bierman, et al[11] it seems more reasonable that the leukemoid reaction is produced by effects at the site of infection, that is, in the lung by impairment of the leukocyte removal mechanism.

SUMMARY

Two cases of leukemoid reaction in pertussis are reported, in one of whom the count reached 138,000. Both cases responded very well to aureomycin therapy and both were practically symptom free at the end of a two week period of treatment. It is suggested that this phenomenon is produced by an impairment of the leukocyte removal mechanism in the lungs.

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★ Editorial ★

THIRD ANNUAL ARKANSAS RURAL HEALTH CONFERENCE

An attendance of over 600 testifies to the state-wide interest in the problems of rural health and such was the enthusiastic response to the efforts of the Committee on Rural Health, Ben Saltzman, Chairman, in the third of these popular conferences. Again the attendance of practicing physicians does not indicate a recognition of what the conference seeks. Busy physicians could well take the time necessary to listen in on the informative discussions which these meetings sponsor and would thereby gain an insight into what the people of the state are thinking along the lines of extending health services in urban as well as in rural areas. A continuation of the program, meritorious as it is, may not appear warranted without a more appreciative attitude on the part of physicians.

PUBLIC RELATIONS

Physician
Patient
Personal

During the past year or so several of the outstanding leaders in the field of medicine have made blanket accusations and condemnations of their colleagues. Specific instances, names or cases were not given as they, of course, should have been if these charges were true. For the most part these statements were made before lay groups or given as sensational stories in widely read magazines. This action seems a clear breach of professional ethics, and these people have done themselves and organized medicine a great harm. In specific instances of incompetence or malpractice positive remedial action must be taken, but malicious gossip, slander or irresponsible allegations have no place in medical ethics.

All members of the medical profession can work in harmony and cooperation. Indeed, because of the close similarity of our training and thinking and ideals we should enjoy and profit by the close association of our fellow practitioners.

A comment which is sometimes heard is that doctors in a certain town don't like each other or can't get along together. This is a deplorable situation because, especially in the smaller towns, cooperation between physicians has many concrete advantages, a feeling of dislike between doctors is quickly felt by patients and the public, and their confidence in the profession is somewhat weakened.

Doctors should carefully refrain from making critical or unkind remarks about other doctors. Likewise, a physician should not heed too closely what a patient may have to say that is critical of another doctor. You cannot judge a particular case unless you have the knowledge of it, and you may be sure that if a patient is uncomplimentary of his former physician he will likely soon be as uncomplimentary of you.

Be careful what you say or write.

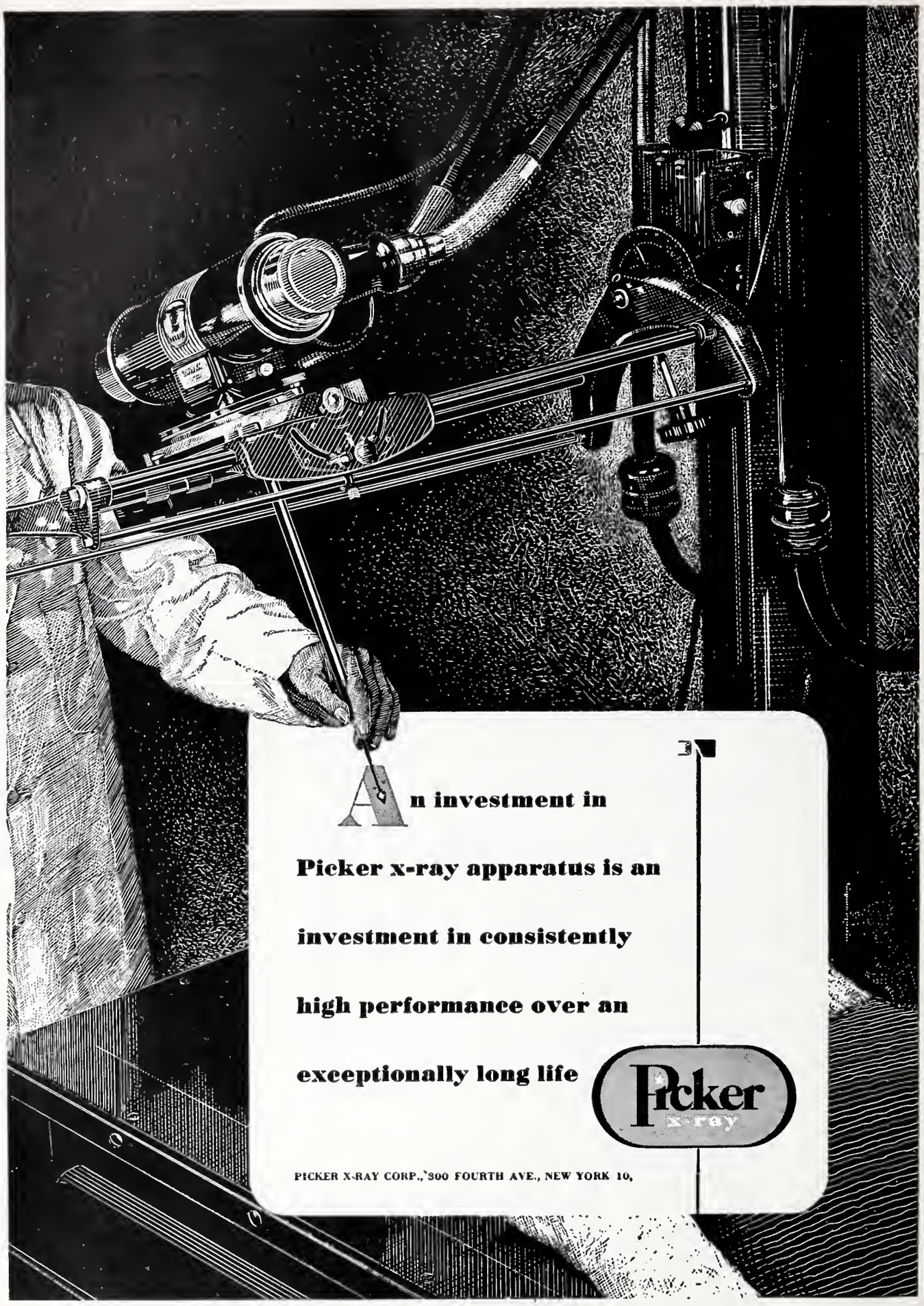
As practicing physicians our public relations are more dependent upon our assistants than we may realize. Therefore, it is very important that we instruct and direct all of our assistants, whether nurse or receptionist or bookkeeper, in the manner of dealing with our patients. It must be borne in mind that patients are frequently anxious, frightened, in great pain or confused. In these instances it is most important that the doctors assistant handle these people with kindness and consideration.

Politeness, courtesy, friendliness and concern are valuable attributes for both doctor and assistant. Impressions which the patient has of the doctor are, in reality, often gained from pleasant or unpleasant association with office personnel. A pleasant voice in conversation or over the telephone is a valuable asset. A receptionist with a harsh or irritating manner can be the cause of patients leaving their doctor.

The unpardonable sin for a doctor's assistant is to divulge confidential or personal matters pertaining to patients or cases. Be certain that your assistants have been properly instructed along this line.

It would be a fine thing if an organization of doctors assistants could be formed in Arkansas with regular meetings and instruction and exchange of experience.

Doctor, examine the manner in which your assistants handle your patients. If it is good then likely your public relations are good.



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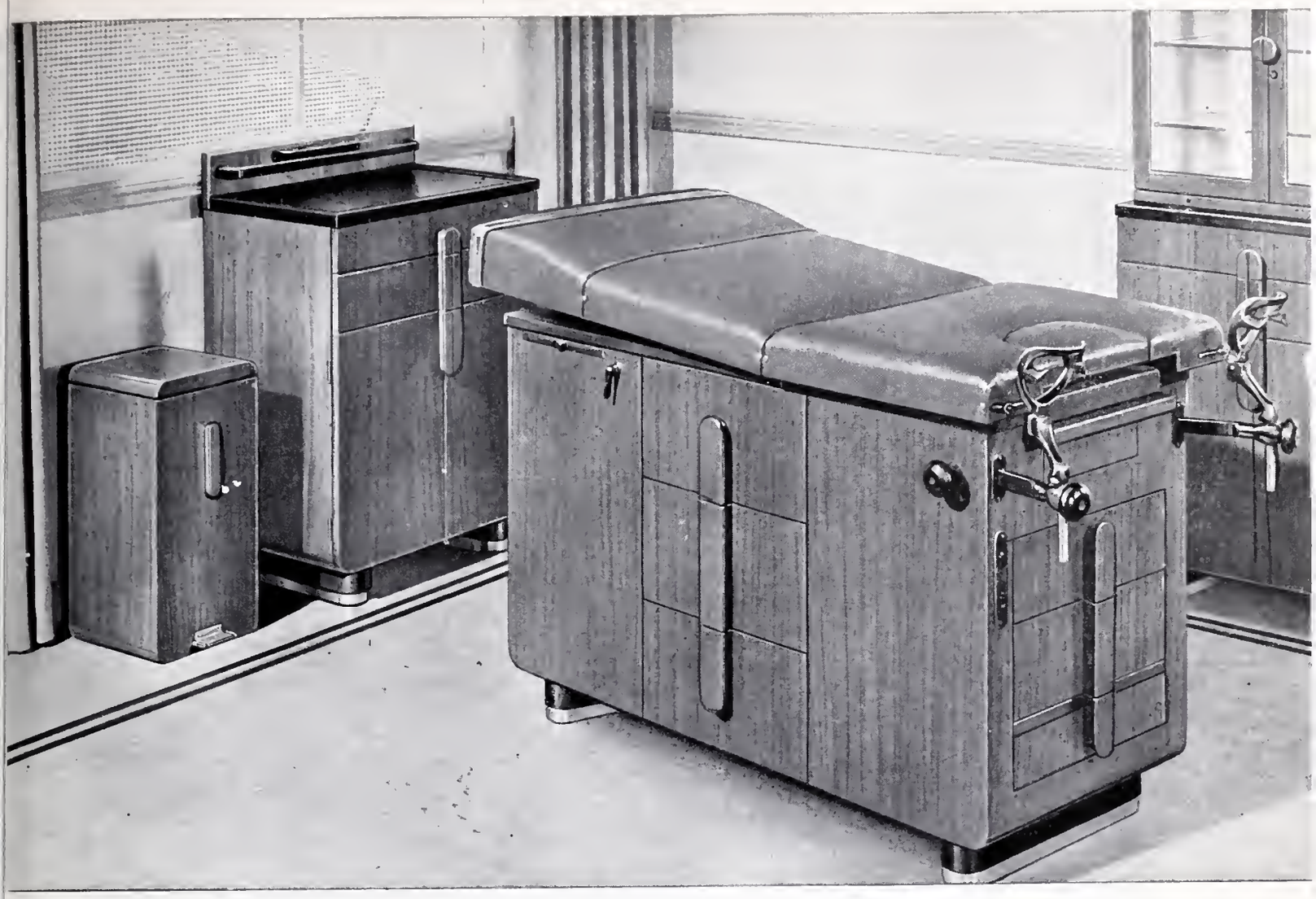

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"SPARKS FROM THE SECRETARY"

The secretary had the honor of sitting in as a member of a panel group discussion with Dr. Dickinson, Dr. Louis K. Hundley, Mr. Paul Schaefer, Dr. Handley from El Dorado and Dr. Tommy Van Duyn of Stuttgart before the State Personnel Managers meeting in Little Rock. Last year this group had a similar panel and they got pretty rough in asking us questions about some misunderstandings and gripes that they had on group insurance. As a sort of an indirect result of this, the Arkansas Medical Society has recently established an Industrial Compensation Arbitration Commission, which comes under the Industrial Health Committee's action, which you will read about later. These men in the Personnel Managers Group are friendly and very much on our side of the fence. They represent from 150 to 200,000 men and their dependents in this state, as regards group insurance. We feel that it is the best of public relations to be co-operative with them. It was quite a good experience.

I think we should all offer congratulations to our Secretary emeritus, Bill Brooksher, over his recent triumph in having the first private Radio Isotope Clinic in Arkansas. It happened on Thursday, the 24th, and the Radio Isotope business was shipped to him from Oak Ridge directly by plane.

Do you ever wonder what the Council does at its many meetings? The members of the Council are well aware that the rank and file of the fellows over the state do not know the trials and tribulations of what happens to a Councillor. At the recent meeting of the Council in Hot Springs, the following things were taken up:

1. The establishment under the Industrial Health Committee of a state wide Arbitration Commission. Men are chosen from each district for various terms for Arbitration over disputable Compensation Commission cases in conjunction with state insurance men. In addition to that above, this is quite important in that it potentially can affect every doctor in every county in Arkansas. The report of the Industrial Health Committee you can read in this or the next issue of the Journal. It should be avidly read by each member of the State Society.

2. Veterans Administration Report. This was a very good report given by Elvin Shuffield in which the recommendation was sent to Dr. Garland Murphy for his excellent work in conjunction with our Veterans Administration Committee, to his Executive Committee of the American Legion. It seems that the Executive Committee knows exactly what our viewpoint is but that it is hard to get it across to the average American Legionnaire; what point of view the doctors in Arkansas has as regards to the Veterans Administration Hospitalization. We also heard an unofficial fantastic report from the Medical Society legal head, Mr. Gene Warren. I wish that we could report on this but it is not ready for publication just yet, but I can assure you that when the report does come out, you will never read a "Who Dun It" as fascinating as this story!

3. The next item of business was an AMA Committee on Osteopathic-MD relationship. This took some discussion and we suggest that every doctor should read this committee report in the AMA Journal of June 20. A special committee will be appointed to report to the Council in the near future on our action on this report. Arkansas is one of the few states which restrict Osteopaths. If you will read this report in the AMA Journal you will see why some action must be taken on the state wide basis.

4. The next item of business was a report from the Committee on Medical Education. The Committee is headed by Wally Thomas and its function is to set up broad policies for the operation of the new Medical Center. Wally and his committee have had several ideas given to them about the way in which patients should be admitted, the type of patients that should be admitted, the way in which the cross-section of the state should be represented and many other ideas. They are very grateful for these ideas so that they can work them out. It's a long time job. Wally and his committee feel that it is much better that if you have any ideas regarding the policies of the Medical School to please transfer them to them before the committee's work is done, so that instead of griping and potshooting after the job is over, that you may have your voice heard now instead of later.

5. Another item of business was the report on the Committee of Public Relations with Dr. Dale Alford as chairman. The result of this report was that the Committee had done an excellent job in this radio work and that the Committee should continue the radio programs by all means. Dale also gave us some ideas regarding long term projects which we feel will work out to the best and everybody can participate in the programs.

6. The last item was suggested by Dr. King Wade, Sr., in which he suggested that the press

be invited to the Council meetings. The co-operation of the press has been quite wonderful and we feel that they could come and get some of the news worthy things. This is the departure from our usual procedure and while some discussion was held we feel that perhaps it would be good public relations for the public to know that we do definitely work out these problems to the best interest of the patient in every instance that we can in which it is possible. From these suggestions you can see why your Councillor has to give the better portion of the day to travel and consideration of measures which affect every one of you.

MEDICAL SOCIETY AND AUXILIARY HONOR COUPLE AT PICNIC

The Independence County Medical Society and Auxiliary entertained with a picnic supper at the Spring Mill Arena on Monday evening, July 13, in honor of Mr. and Mrs. Abner Junkin who are leaving to make their home in Little Rock.

There were 29 members present. Following the supper, Dr. Chaney Taylor, president of the Medical Society, presented Mr. and Mrs. Junkin with gifts.

Hostesses for the occasion were Mrs. Paul Gray, Mrs. Hickman Calaway, and Mrs. C. A. Churchill.

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Above is a photograph of members of the senior class of the University of Arkansas School of Medicine who, with their wives, visited Eli Lilly and Company June 21-24. While guests of the company, they inspected the Lilly Research Laboratories and toured pharmaceutical, biological, and antibiotic production facilities.

Members of the group, pictured from right to left, were Mr. and Mrs. Travis Crews, Mr. and Mrs. W. R. Seibold, Mr. Charles Fielder, and Mr. and Mrs. Ben Lincoln.

Other members of the class are expected to visit Eli Lilly and Company August 17-19.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

TUBERCULOUS INFECTION IN THE LIGHT OF TUBERCULIN MATRICULATION

By TOBIAS GEDDE-DAHL, M. D.

The American Journal of Hygiene, September, 1952.

(Editor's Note: The decline in the tuberculosis death rate in some sections of the United States has led to a situation in which virtual eradication in these local areas is now a possibility. In this connection the summary of an extended study of the epidemiology of tuberculosis in a rural population in Norway is presented. The material, of which the article cited is but a part, was published in book form in the Norwegian language.)

Tuberculosis control measures may be based on the assumption that early treatment hinders existing or potential sources of infection from spreading the disease, and shortens the duration of institutional treatment. If most cases of pulmonary tuberculosis develop soon after infection, then the demonstration of the change from a negative to a positive tuberculin reaction provides the earliest diagnosis.

Tuberculin matriculation was the term applied to tuberculin testing of the whole population, which was then divided into a tuberculin-positive and a tuberculin-negative group. The latter was retested with tuberculin at suitable intervals. The positive group and the converters were kept under radiological observation until the risk of disease was minimal and were retested with tuberculin at long intervals.

When, in 1937, the author began to carry out tuberculin matriculation, several questions arose. Was tuberculin matriculation feasible in Norway? What was likely to be discovered with regard to tuberculous infection, disease and transmission? Can tuberculous infection be controlled? Can the further spread of infection, morbidity and mortality be influenced thereby?

The experiment was made in the medical district of Kinn with a population of about 6,500 persons engaged, for the most part, in fishing and farming. In each school district all inhabited houses were mapped and numbered. All households were listed with the name and occupation of each family member and information concerning the tuberculin reaction, tuberculin conversion, illness, contact with tuberculosis and X-ray examinations. Individual health examination cards were filed by families. The cards of persons with notified tuberculous disease and converters were kept in a separate file, the tuberculosis register. The nurses who did most of the work in tuberculin matriculation also had a generalized public health program.

The study proved that it was possible within a limited area to reduce the spread of infection from primary infection tuberculosis, that is, pulmonary tuberculosis developing during the first few years after infection. This is notably the case with tuberculosis in juveniles. However, in a few instances spread of the disease occurred even in the primary phase before diagnosis. In some instances control has been deficient. It has proved impossible to prevent all infections by juvenile sources of infection among newcomers and visitors. Many of these individuals had, presumably, primary infection tuberculosis (hilus cavities in two cases). When tuberculosis control is effected throughout the country it should be possible to protect ourselves against such infections. But spread of the disease continues owing to new outbreaks of old disease, relapses or progressive changes occurring long after the original infection. Progressive disease often follows defective treatment and observation. Spread of infection may also be due to defective cooperation between physicians and the health councils, and lack of continuity in local health activities. Many patients feared relapse and tried to avoid examination.

In most cases the spread of infection could be avoided by more vigorous treatment and more complete follow-up of older patients with tuberculosis. Yet, however accurately we carry out the health examinations, we cannot achieve complete victory over infection until the public has become better informed. It sometimes happens that an infectious form of primary pulmonary tuberculosis runs such a rapid course that others have been infected before the next scheduled examination.

A flare-up of an older infection may also occur rapidly. In many instances the ignorance and asocial attitude of the sources of infection have contributed to the spread of infection. There is a difference between infectious and infecting pulmonary tuberculosis. We consider every person with lung infiltrations and bacilli found through smear or gastric lavage, or with only a suspect cavity, to have "infectious tuberculosis." This estimation, however, gives misleading figures of the frequency of infecting tuberculosis.

Even if we realize how dangerous some infection sources may be, we are impressed by the low infectiousness of pulmonary tuberculosis. This may be a question of intimacy of contact or of virulence and viability, that is, the infecting capacity of the tubercle bacilli from different types of pulmonary tuberculosis. These problems are important in the evaluation of our chances to establish efficient epidemiological control of tuberculosis, which are probably much greater than was formerly believed in Norway.

Tuberculin matriculation is a feasible method in tuberculosis control in small towns and rural areas if public health nurses are available. The development of infection may be followed from an early stage and the spread of the disease traced. Moreover, it gives information for a clearer insight into the epidemiology. The facts permit us to consider tuberculosis as a disease which can be fought by epidemiological means which permit early detection and treatment of primary infections and their infectious sources. The lower the infection rate is in a region, the more important is the epidemiological approach compared with other mass examination methods. As tuberculosis decreases, it becomes important to combine tuberculin matriculation with general health examinations. This plan leads to decentralization of tuberculosis control and to closer and more permanent supervision of the "healthy" population.

Mass radiography as a screening mechanism, though of importance in cities and in persons past middle age, will not be the basic method in the long run. By repeated tuberculin testing it is possible to uncover fresh primary infections and to focus control efforts on the most important group —recently infected persons. X-ray examination of uninfected persons is thereby avoided.

Another valuable supplement is BCG vaccination of exposed persons. However, in regions with low infection rates, mass vaccination will be scarcely practical. A steadily increasingly number of persons has to be vaccinated and protected against a diminishing threat. Most important, mass vaccination deprives us of the power to distinguish between the infected and the uninfected making X-ray examination of all the population necessary. Finally, a cardinal factor in making a correct prognosis of a primary tuberculous infection is the knowledge of the time of onset. This factor cannot be known in a vaccinated population.

Therefore, it is concluded that tuberculin matriculation is the fundamental principle in tuberculosis control of the future in regions or populations with low infection rates. The less frequent the occurrence of tuberculosis, the more selective the method must be.

OBITUARY

ALONZO L. BEST, age 78, died at Newport July 11th of a heart attack. A graduate of Memphis Hospital Medical College in 1901, he had practiced at Newport nearly fifty years. He was a member of the Jackson County Medical Society and of the Arkansas Medical Society. Surviving are his wife, a son and a daughter.

POPE COUNTY PIONEER DOCTORS

By MRS. L. GARDNER, Russellville, Ark.

Dr. Thomas Russell was born in Gateshead, Durhamshire, England, June 13, 1801. After gaining a literary education he served an apprenticeship of five years under Dr. Thomas Mitchell, who was a member of the Royal College of Surgeons in London. In 1825 he entered Guy's and St. Thomas Hospitals in London, and from those institutions received numerous certificates of attendance and for proficiency in various departments. He succeeded in carrying off the first two prizes, namely: The demonstrator's prize and the prize in midwifery.

In 1826 he graduated in the Royal College of Surgeons, London and thereby became a member of that body. After traveling extensively in continental Europe he came to America in 1829. He settled in Illinois near his three brothers who preceded him. He was married to Miss Mary Ann Graham in 1832. Seeking a milder climate he came to Arkansas in 1835 and was imminently successful as physician and surgeon, performing surgical operations that baffled the skill of others. He traveled horseback in making calls, and in winter often wrapped his legs and feet in paper for an extra protection from the cold. He rode as far as Louiseberg or Lewisburg on the river near Morrilton to the east and Clarksville on the west. He would often be away many days at a time on his work. Dr. Russell continued in active practice until April 13, 1866, when he died of pneumonia.

The town of Russellville derived its name from the family name of Dr. Thomas Russell.

Presented by Mrs. Chas. W. Dixon, Chairman Biography.

HISTORIES OF PIONEER DOCTORS IN YELL COUNTY

Compiled by MRS. GORDON PAGE OATES

F. M. Baker, M. D., of Riley Township, Yell County, Arkansas, was one of the leading practitioners of Marvinville, and was born in Catoosa, Georgia, on August 29, 1860, the son of Samuel and Sarah (Gill) Baker, natives of Georgia and South Carolina. Dr. Baker spent his early days in Georgia farming until 1878, when he moved to Mississippi. After farming in that state for two years, he took up the study of medicine commencing in Banner, Calhoun County, of that state in 1880. In 1881 he began with Dr. J. Baker, an eclectic physician, continuing with him for one year. When he came to Arkansas and began practicing, meeting with good success. In 1885 he went to the Eclectic Medical Institute of Cincinnati, Ohio, remaining there until 1887, when he graduated. Upon leaving college Dr. Baker returned to Marvinville, was well received and succeeded in building up a good practice. He owned a small farm of forty acres of land, besides four town lots. He was married in Marvinville in 1887 to Miss Martha B. Parker, born in 1867, native of Tennessee. Both the doctor and his wife were members of the Christian Church. Socially he was a member of the Christian Lodge 394, A. F. & A. M. and is a democrat in politics.

* * *

Dr. H. P. Bruton, the well known eclectic physician and member of the popular firm of Bruton and Lynch, general merchants of Bellville, was born in Pope County in 1840, his parents, James and Sarah (Angel) Bruton of Kentucky and Tennessee came to Arkansas in 1836. The doctor's early boyhood was spent on a farm, attending private school and when sixteen years old began teaching and for several years taught and attended school. When he was nineteen he engaged as clerk in a drug store and there laid the foundation of his medical profession, by reading medicine in connection with his duties at the store. In 1860-61 he enrolled himself as a student of the Eclectic Medical Institute, afterward graduating and at once beginning to practice. Locating in Danville, in 1867 he opened an office and in 1872 started the first drug store in town withdrawing from this to enter into the general merchandise business. Going to Russellville in 1878, he became engaged in his profession and merchandising, and remained there until 1881 when he came to Bellville, where he established his practice. In 1889 he was president of the State Eclectic Medical Society. In January, 1890, he took into partnership, T. C. Lynch. His individual property consists of a good dwelling and one hundred and sixty acres of land, partially cultivated. He married three times, the first time to Miss Ella Fowler, in 1873 who died in a few years leaving one child; in 1878 he married Miss Stafford, and she died leaving one child; and in 1885 he celebrated his third marriage to Miss Jones, who bore him two children. They were members of the Methodist Episcopal Church South.

* * *

Dr. Hiram Dacus, was the eldest son of fourteen children born to James A. and Martha J. (Burton) Dacus, in the State of Tennessee, in 1840. He moved at the age of three with his parents to Arkansas. The doctor attended the schools of his county and received a thorough education in the common branches, and having chosen medicine as his life work, attended lectures at a medical institute in Cincinnati, Ohio, and about 1861 opened an office in the old town of Lewisburg and Plummerville, Conway County. About this time he put aside his professional duties for service in the army and enlisted in Co. F., Third Arkansas Regiment of the Cavalry, remaining in the army until 1865. He held the rank of a lieutenant when discharged having received this title as an award for his bravery and faithful services as a soldier. On his return home he resumed his practice and in connection with his professional duties assisted in the reconstruction of the States as Deputy Clerk, and in 1868 was elected Justice of the Peace of Dardanelle Township. In 1879 he again attended lectures and in 1885 was chosen by his fellow citizens to represent the State in the Legislature. In 1859 he married Miss Sarah E. Patey of Tennessee who died in 1881 leaving four children. He married again to Mary L. Durham of Mississippi, they had two children. The doctor and his wife were members of the Church of Christ, and socially he belonged to the Masonic fraternity, having been initiated in the Plummerville-Howard Lodge No. 253 and as a citizen and physician has the respect of his many friends and patrons.

* * *

Dr. Robert Dacus, was born in Pipton County, Tennessee, October 7, 1843. In March, 1851, his father having died in 1848, his mother came to Arkansas, settling in Yell County. When she died, he went with his sister to live with their half-brother, James A. Dacus. Here he remained, working upon the farm and attending school when opportunity afforded until the breaking out of the war in 1861. He then entered the Confederate Army, enlisting in Co. H., First Arkansas Mounted Rifles, with which he served until the close of the war. He was in the battles of Oak Hills, Mo., and Elk Horn, Ark. Also the battles of Farmington, Tenn., Richmond, Ky., the siege of Jackson, Miss., and the battle of Chickamauga, Ga., where he was severely wounded. During the spring and summer of 1864 he was with the Johnston's retreat through Georgia. It would be too tedious to mention all the battles and skirmishes in which he participated. When at the final surrender and close of the war, the last roll was called, there were but seven to answer to their names out of his company, he being one of that number. On their way home the freight train upon which they were being transported was wrecked, and ten of his comrades were killed and fifty others injured, he being one of the latter receiving injuries at that time, from which he will never fully recover. After coming home he spent about eight months in school. The balance of the time he spent partly on the farm and partly as salesman in general mercantile business until 1870, when he entered the medical department of the University of Louisiana (now Tulane University). In the fall of 1871 he went to the Cherokee Nation and began practice of medicine. He remained here seven years, when his health failing, he returned to his old home in Yell County, where he followed his profession and had quite a lucrative practice. December 23, 1869, he married Miss Hettie A. McCarty at Evansville, Washington County, and they had four children. Dr. Dacus was a member of the Baptist Church, and served as deacon and corresponding secretary. His wife and daughter were members of the Baptist Church also. Socially, he was a member of the Masonic fraternity and K. of H. Both the Doctor's and Mrs. Dacus' parents were among the pioneer settlers of Tennessee.

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Dr. Thomas Jefferson Daniel was one of the well known physicians of the Petit Jean Valley, located at Waveland, Yell County in Arkansas. He was born on December 9, 1857, near Quitman, Van Buren County, the son of William and Jane (Haney) Daniel natives of North Carolina and Tennessee, respectively. After his father's death in 1865, Dr. Daniel remained with his brother John W., in

White County until he married. Remaining a student until he was seventeen years of age, he received a good common school education, and in 1875 moved to Mount Vernon, where he followed carpentering and farming, still studying when he found time. In 1879 he commenced the study of medicine under Dr. J. F. Powers, of Mount Vernon, remaining with him one year, when he decided to change his course, and took up the study of the eclectic system instead of the regular course. He studied three years, passed the medical board in 1882, and then located in Faulkner County, practicing there until 1885, when he moved to Riley Township, this county, soon building up a large parctice in this and adjoining townships. He was married on September 18, 1873, to Eliza C. Harrison, born in 1856. They had three children. He was a Democrat in his political views, and socially was a member of the Magazine Lodge No. 69, I.O.O.F., and Magazine Lodge, A. F. & A. M., also the Farmer's Alliance. He was formerly a member of the Missionary Baptist Church, but in 1878 joined the Second Adventist, and was ordained a minister of same in 1879. He had held five noted religious discussions, first, with Elder P. Hammit in Van Buren County; second with Elder Blaylock, a Yell County Missionary Baptist divine, on "The State of the Dead," lasting three days and at the close of which he had forty additions; third with Dr. Calico of Scott County, a Christian preacher; fourth with Elder J. T. Garland, also a Christian preacher of Yell County. In the last three years he was instrumental in receiving and baptizing three hundred in the Church of his faith. Then he became pastor of the Waveland Church.

* * *

Dr. Andrew J. Dyer, ranks as one of the best known physicians of Dardanelle, thoroughly conversant with and well posted in, medicinal lore. Dr. Dyer was born in Smith County, Tenn., January 13, 1831, being the second child in a family of five born to James S. and Martha (Hallum) Dyer. Dr. Dyer's father was a doctor also. Dr. Andrew Dyer was reared and educated in Tennessee, being an attendant at the Academy of Hartsville, and other schools of Sumner County and Wilson County. Being seized with the gold fever in 1850, he journeyed to California to seek his fortune in the gold mines of that state, remaining here but a year. At the expiration of which he returned to Tennessee, matriculated and was one of the first in the medical department of the Nashville University. Graduating in 1853, he at once began the practice of medicine, locating at Hartsville, and in 1854 came to Arkansas, settling at Dardanelle, where on December 5, of the same year, he married Miss Margaret E. Toomer, daughter of Col. Joshua Toomer. Not having any children of their own, this worthy couple have reared several. Dr. Dyer remained in Arkansas till 1856, when he again went to Tennessee, sojourning there until the outbreak of the war, when once more he came to Dardanelle, and in response to his country's call took his place in Capt. Daniel's company, First Arkansas Rifles under command of Colonel Churchill. Soon after his enlistment he was appointed assistant surgeon serving in this capacity until 1864, when ill health compelled him to leave the army, and return home. He settled on a farm eight miles from Dardanelle. In 1875 he retired from active practice, and in 1881 he purchased a home in town. The Doctor was a member of the Methodist Episcopal Church South, being one of its most earnest workers, and for sixteen years was chosen as a lay delegate to represent its interests in the annual conference. Politically he was a Democrat.

Dr. J. H. Harkness, another of Bellville's progressive physicians claims Northern Georgia as his birthplace, being born in that state in 1850. His parents, R. W. and Eveline (Bacon) Harkness, were natives of South Carolina and Georgia, respectively. The Doctor was early taught the rudiments of farming, and attended school till ten years old, when he was obliged to drop his studies, and did not take them up again until attaining his majority, when he worked and studied, and in 1873 began the study of his chosen profession with an uncle, in Georgia, and the next year attended lectures at Atlanta, and in the spring of 1874, while yet a student, he came to Arkansas, and began to practice, and in 1885, returned to Little Rock to complete his studies, graduating here with high honors. On coming to Bellville he established a practice and opened a drug store. He also owned a tract of land, 100 acres in extent, seventy of which were cultivated, and five acres and a residence in town. He married Miss Kate Hamilton in the fall of 1875, who bore him one child. The Doctor and family were members at the Methodist Episcopal Church South, and he is well worthy the reputation he has earned as a citizen and physician.

* * *

Dr. John B. Heck, a merchant of wide experience and the trustworthy and honored physician of Bellville, was born and reared in Yell County, in 1850, and he was the only child of Abraham S. and Alfleda (Balch) Heck, of Pennsylvania and Tennessee, respectively. The Doctor's early educational advantages were exceedingly few, but being possessed with a strong spirit of determination and the desire to become a physician, in 1871 he began the study of medicine at home, and the succeeding year went to Nashville and entered the medical college, and later thence attended lectures at a Louisville institute, from which he graduated in 1873-74. Returning to Arkansas, he opened an office at Danville, practicing here for some nine years, in 1877 the firm of Heck & Briggs was formed and was so known until February, 1881, when the Doctor withdrew and came to Bellville, where he and Isaac N. Martin opened a general store, which they conducted until 1885, when he sold out his interest, and October of 1886 became one of the firm of F. C. Jones & Co., general merchants, carrying a well selected stock. He also owns several farms. He was one of the founders of the town's beautiful institution of learning. He has been married twice: First to Miss Alice T. Logan, daughter of Jonathan Logan, one of the earliest settlers of this county, who died in April, 1881, leaving him with one child. In 1883 Miss Fannie L., daughter of Dr. D. F. Huckaby, also a pioneer of Yell County, became his second wife, and she bore him three children. Dr. Heck and his family were members of the Methodist Episcopal Church South, and he belonged to the Masonic fraternity, being a member of Christian Lodge No. 394, of Bellville, and of the Chapter and Council of Dardanelle. He was a most exemplary citizen, aiding and supporting all of his town's interests.

* * *

Dr. Daniel F. Huckaby, was among the self-made men of Arkansas and Yell County, coming to this State in the early days of 1839, he has done much to advance its growth, and is recognized by the old pioneers as one of the founders of the county. He was born in Union District, S. C., October 4, 1813, and was the son of Robert and Susan (Fitch) Huckaby, also of South Carolina. He was raised on a farm and given but a few week's schooling, and when twenty years old his father gave him his freedom, when he went to Reedstown on Broad River, and apprenticed himself for two years to a cabinet-maker; working for him a year and a half he bought his time and went to

Pinckneyville, and accepted a position at his trade at $40 per month. At the expiration of fourteen months left this position to accept one at Packilett River, where he remained three years, and during this time, 1838, he married Cynthia E., daughter of John Haney, of South Carolina, and she became the mother of four children. About a year after his marriage, he and nine families from his neighborhood made up a train of nine wagons and started overland to Arkansas. They were seven weeks on the way, they arrived safely at Danville, this State, thence journeyed to Spring Creek, near Bellville, here the colony settled, and Dr. Huckaby went to Pittsburg, Johnson County, and worked one year at his trade; he farmed, and did carpentering. About this time the settlement petitioned the Legislature to divide Pope County and form a new one; this being granted, Yell County was organized; meeting with such success, they also prayed the U. S. Government to bring their land into market. The Doctor soon received an appointment from the Government as commissioner of public building, and let the contract for the erection of a courthouse, he himself being one of the workmen. The doctor's wife died, in 1857, and he remained a widower until October 4, 1858, then he married Miss Sarah Meers, who bore him four children. He began his medical studies in Pickneyville, S. C., while a resident in the home of Dr. McGovern, devoting his spare time to his studies, and in 1861 attended lectures at McDowells' Medical College at St. Louis, but being taken ill was obliged to abandon his studies and left for home, where he began his practice after fully recovering. But war having been declared, and the country in a fearful state of agitation, he, a sworn defender of the United States Government, was obliged to flee to the Red River country, where he practiced until the cessation of hostilities, and in May, 1865, he returned to Yell County. On the succeeding year he entered the Medical University of Louisiana at New Orleans, where he took a regular course, then returned to his farm, which he worked in connection with his practice, attending lectures from time to time until 1882, when he left his farm and moved to the village of Bellville, and opened an office. In 1853, he was elected to the Legislature by a large majority, and was an efficient and active worker for the good of his State, and in 1873 he was again sent to represent it in the Legislative body. He was a member of the Methodist Episcopal Church, a Democrat politically; is a public-spirited citizen, and a hospitable entertainer of his many friends.

* * *

Dr. William H. McCall, physician, Briggsville, Arkansas. Dr. McCall an energetic practitioner, is recognized throughout this county as a friend and laborer in the cause and advancement of the medical profession. He came with his father's family to this State from South Carolina in 1860, settled at Mount Holly, Union County, was reared on a farm, and remained with his father until his majority. His educational advantage in youth were good and when he came to Arkansas, when seventeen years of age, he was fully prepared to enter college. But he was deprived of this privilege for several years on account of the breaking out of the war. In 1861 he engaged to teach a country school, and did this for about three years. After his father died, 1864, he returned to the farm where he remained for three years to help support the family. During this time he had taken up the study of medicine. In 1867 he became a clerk in the general mercantile store at Mount Holly, Union County, and continued this for six months, but being interested in the study of medicine he left the firm in the fall of that year to attend a course of lectures at Memphis, Tenn. The following spring he came to Briggsville Township, Yell County, and commenced the practice of medicine. In 1875 he sold his sixty-five acres under cultivation and bought 360 acres in the same neighborhood. Making other purchases, he owned about 1,800 acres of land. He was also engaged in general merchandising at Briggsville. In 1882 he started a grist mill and cotton-gin with J. H. Waldron. Dr. McCall was born on May 28, 1843, and was the son of Malcomb and Lydia (John) McCall. On July 27, 1876, Dr. McCall married Miss Mary C. McRae, formerly of North Carolina. His political preferences are Democratic, and he was chairman of the central committees. He was an Old School Presbyterian.

* * *

Dr. A. H. McKenzie, born April 18, 1849, in York County, S. C., one of the eight children of Arthur A. McKenzie and Rachel E. Barnett. The Doctor was educated in the Kings Mountain Military School and acquired his professional knowledge in the medical department of the University of Maryland. Graduating March 4, 1872, he chose as his first place of settlement his native county, where he opened an office and began his practice. He came to Arkansas in June, 1872, and on January 9 of the succeeding year married Miss Mary J. McKenzie, who was born in 1854. They had ten children. Soon after he settled in this county the Doctor bought 170 acres of land. He was a Mason of high degree, being worshipful master of Centerville Lodge No. 462, scribe of Dardanelle Chapter No. 64, and a member of the Eastern Star. He and his family were members of the Presbyterian Church, and as a physician he was the trusted friend of his many patrons.

* * *

Dr. John M. Montgomery, Sr., one of the oldest practitioners in the county of Yell, and like many other prominent citizens of the county, a native of Tennessee, was born in Giles County on March 11, 1823. He was reared on a farm in Hardeman County, Tenn., and his early opportunities for an education were limited. In 1841 he began for himself as a farmer, but feeling the need of a better education he entered the college at Bethel, Tenn., in the fall of that year. He remained there until March, 1843, when his father died, and he was obliged to return home to take care of the estate. He left home in 1844, and on January 1, 1845, he married Miss Angelene G. Strickland of Tippah County, Miss. The Doctor settled in Tippah County, Miss., and there engaged in farming and teaching school until 1853, when his wife died, leaving him with four children. Then Dr. Montgomery was given a circuit and began preaching for the Methodist Church, leading the life of an itinerant preacher for two years. He was at this time located in North Mississippi, and during this time he began reading medicine. In the fall of 1854 he took a course of lectures at Memphis, Tenn., and later began practicing in Marshall County, Miss. He took a second course of lectures in 1855 at Cincinnati, Ohio, and graduated in 1855. In the fall of that year, October 17, he was married to Miss Martha C. Nichols of Marshall County, Miss. He continued the practice of medicine for five years in that county then moved to Fayette County of that State, where he remained until 1865, when he moved to Abbeville on the Mississippi Central Railroad, continuing his practice at that place for fifteen years. From there he moved to Conway Station, Faulkner County, Ark., continuing there for five years, in the fall of 1885 he came to Rover Township, Yell County, Ark. In 1887 he moved to Gravely Hill. During all this time he has also given his attention to ministerial work, as well as the medical profession. He also bought a tract of land. He was the father of twelve chil-

dren. He was a Jacksonian Democrat in politics.

Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. Chas. W. Dixon, Chairman.

CLAY COUNTY PIONEER DOCTORS

By MRS. PAUL STROUD, Jonesboro, Ark.

Dr. James A. Piggott—In the fall of 1873, Dr. James A. Piggott of Dow, Ill., and some of his neighbors loaded 13 wagons with implements necessary for the opening of a home in a new and undeveloped country, and headed for Arkansas. Crossing the St. Francis river at Chalk Bluff, they made their way down Crowley's Ridge and across the White river bottoms toward the center of the state. Not finding a suitable location, they turned again to the northeast.

When they reached the beautiful hills about two miles northwest of the present site of Piggott, they decided that this was the place to build a home. Dr. Piggott bought a small hill farm on which a log cabin stood. He cleared the farm, and began the practice of medicine.

At this early date the railroad had not been started, and roads were only dim trails leading from one settlement to another. The dense forests, broken only by the scattered clearing of the few settlers, abounded with game. There was no postoffice nearer than Chalk Bluff, about seven miles farther north.

Dr. Piggott, finding it very inconvenient to make his way through this almost unbroken forest to Chalk Bluff for his mail, and also take care of his expanding medical practice, petitioned the Postal Department to establish another office in the home of his neighbor, Richard Throgmorton. Although, Mr. Throgmorton was named postmaster, his wife did most of the taking care of the mail. She chose the name of Piggott for the new postoffice, in honor of the doctor who had been influential in securing mail service for the neighborhood. Dr. Piggott called at the postoffice for mail that could be delivered as he went about his professional calls.

The doctor also took an active part in securing the right-of-way for the new Cotton Belt railroad, which he saw completed before his death. Dr. James A. Piggott was born in St. Francis county, Missouri, June 9, 1816, and died in Clay county, Arkansas, November 4, 1882.

* * *

Dr. Sam Huston—In 1874, the year following Dr. Piggott's arrival, another doctor appeared in the community. This was Dr. Sam Huston, from Missouri, who met and married Miss Susan Lowrance, daughter of Mrs. Lucy Lowrance. Mrs. Lowrance had come to the locality in 1858, and her husband lost his life in the Battle of Helena during the Civil War. Her home was in the southern part of the town which eventually became Piggott. The town cemetery bears her name.

In October, 1882, Mrs. Lowrance platted an embryo town, calling the first cluster of houses Huston, for her son-in-law. In February of the next year, A. J. Brown bought one of the lots and built a store and postoffice, which was the first business house in Piggott.

Clayton County was created by act of the legislature on March 24, 1873, named for Senator John M. Clayton, who was largely responsible for creating the new county. Because of the unpopularity of a former governor, Powell Clayton, the people of the county petitioned that the name be shortened to Clay county. The change was approved by the legislature in 1875. The western part of the county had been taken from Randolph county, and the eastern part from Greene county. Settlers of the 1870's could boast they had lived in three counties without changing their home site.

Presented by Woman's Auxiliary to the Arkansas Medical Society—Mrs. Chas. W. Dixon, Chairman Biography Committee.

SOUTHERN AUXILIARY PLANNING STREAMLINED CONVENTION

Mrs. Richard F. Stover, President of the Woman's Auxiliary to the Southern Medical Association, has announced that the convention to be held in Atlanta, Georgia, October 26-29 will be streamlined so that time may be given to the members for shopping, being with their husbands and visiting with friends.

All regular meetings of the Auxiliary will be held at the Henry Grady Hotel, where there will, also, be a registration booth; another registration booth and exhibits will be at the Municipal Auditorium. Meetings are planned as follows: Tuesday 10 a. m. to 12 noon, Wednesday 10 a. m. to 11:30 a. m.

Mrs. Leo J. Schaefer, President of the Woman's Auxiliary to the American Medical Association, will be guest speaker and Mrs. Stanley A. Hill, Corinth, Mississippi, will be installed as president at the Wednesday morning meeting.

A Research and Romance of Medicine Luncheon or Tea will be held on Tuesday. Dr. Frank G. Slaughter, famous surgeon and novelist will be the guest speaker. A Doctor's Day Luncheon honoring two "Doctors of the Year From the South," Dr. William L. Pressly, Due West, S. C., and Dr. N. M. Travis, Jacksonville, Texas, will be held at the Atlanta Athletic Club on Wednesday at 12:15 p. m. There will be an outstanding speaker for this luncheon. All auxiliary members and their husbands are invited. A large crowd is expected.

Mrs. E. A. Bancker, Chairman of the Arrangements Committee, has advised us that many reservations have already been made at the hotels in Atlanta. From this we anticipate a large and successful meeting. We are also informed that the ladies of Atlanta, Foulton County, and the entire State of Georgia are looking forward to this convention with a great deal of pleasure.

If you have not already done so, we suggest that you make your hotel reservations now. Address your request for reservations as follows: Bureau of Housing, Southern Medical Association, 801 Rhodes-Haverty Building, Atlanta 3, Georgia.

PERSONALS AND NEWS ITEMS

On his ninetieth birthday, August 19th, E. F. Ellis, Fayetteville, received the "Distinguished Citizen Award" of the Washington County Historical Society.

M. C. Hawkins, Jr., Searcy, spent three weeks in special work at the Mayo Clinic during August.

Merlin J. Kilbury, Jr., has opened offices for the practice of general surgery at 716 Donaghey Building, Little Rock.

Dr. and Mrs. Stewart Wilson, Rogers, spent an August vacation in Minnesota.

Louis K. Hundley, Pine Bluff, announces the association of Lawrence M. Zell in practice limited to diseases of the skin.

Dr. and Mrs. R. A. Downs, Fort Smith, spent a recent vacation in New Orleans.

J. E. Beasley and L. D. Massey are members of the Board of Governors, Osceola Memorial Hospital.

Dr. and Mrs. James Thompson, Fort Smith, spent a recent vacation in the Missouri Ozarks.

S. S. Beaty, England, was recently the subject of a special article in the Arkansas Democrat.

Eugene Gordon has located at Luxora.

J. F. John has retired as city health officer at Eureka Springs and will continue in limited private practice.

Stanley Applegate recently addressed the Springdale Rotary Club on modern developments in medicine.

D. W. Goldstein, Fort Smith, addressed the staff of Rogers Memorial Hospital August 10th on "Usual and Unusual Skin Lesions."

"The Use of Vaginal Hysterectomy in Plastic Repair" by Willis E. Brown and W. H. Stenstrom, Little Rock, appeared in Southern Medical Journal, August issue.

B. B. Wells has resigned from the University of Arkansas School of Medicine to accept appointment as vice-president and senior editor of W. B. Saunders Company, Philadelphia.

William K. Hill has located at Newport.

S. A. Collom recently addressed the Texarkana Rotary Club.

Dr. and Mrs. E. Z. Hornberger, Fort Smith, spent a recent vacation in Wisconsin.

"The Midwife, Should She Be Ignored, Eliminated or Controlled?" by Eva F. Dodge, Willis E. Brown and Frances Rothert, Little Rock, appeared in the July issue of the Southern Medical Journal.

Dr. and Mrs. A. J. Brizzolara, Little Rock, spent a recent vacation in Colorado.

PROCEEDINGS OF SOCIETIES

The Fifth Mental Hospital Institute of the American Psychiatric Association will be held in the Marion Hotel, Little Rock, October 19th-22nd, 1953. The Institute is organized to provide for and encourage free discussion by staff members of hospitals for mental patients, schools for the deficient and the central administrative offices. Approximately 300 of these leaders are expected to be in attendance. The local arrangements committee is: C. C. Odom, Harold W. Sterling, Hayden C. Nicholson, Delmar Goode, William G. Reese, Robert G. Carnahan, and Edwin S. Chappell. Full particulars may be obtained from Dr. Chappell, Veterans Administration Hospital, North Little Rock.

The Auxiliary to the Arkansas Medical Society had four delegates to the AMA Conference which was held at New York City in June. The delegates included the State President, Mrs. A. A. Little, Texarkana; Mrs. W. R. Brooksher, Fort Smith; Mrs. L. H. McDaniel, Tyronza; and Mrs. Mason Lawson, Little Rock, who was re-elected National Treasurer.

Mrs. Little reported that the banquet at the Waldorf-Astoria was a beautiful affair with Mrs. Ivy B. Priest, Treasurer of the United States, as guest speaker. There were 38,000 in attendance, including doctors' wives, detail men, etc.

Mrs. King Wade, Jr.,
Publicity Secretary
Woman's Auxiliary.

The Southeast Arkansas Medical Society met at McGehee July 30th with Hayden C. Nicholson, H. M. Carney and R. C. Dickinson addressing the meeting.

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And Published Under Direction of the Council

W. R. BROOKSHER, M. D., Editor
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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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● SPECIAL FEATURES

Committee on Cancer Control 77

The Tuberculosis Problem in Arkansas 78

Post-Operative Care To Prevent Recurrence of Kidney Stones 80

Correspondence 82

Recent Trends in the Diagnosis of Cancer 83

"Fluid Balance—Everyone's Specialty" 85

● FEATURES

Editorial 86

Public Relations 86

Tuberculosis Abstracts 88

Obituary 90

Proceedings of Societies 91

Personals and News Items 92

Woman's Auxiliary News 94

Book Review 94

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COMMITTEE ON CANCER CONTROL

C. A. ARCHER, JR., Chairman

"Definitive treatment in skin cancer is removal of the entire cancer, while still localized, with as good plastic results as can be obtained. This is not only important from the standpoint of the patient's morale but also because the tissue which remains must be left in as near normal physiological condition as is compatible with cure. We can now cure 95 per cent of skin cancers. Early diagnosis and fearless treatment is the answer. Treatment methods are surgery, cutting or coagulation cautery, electro-coagulation, X-ray or radium, in about this order of popularity. There is no single proper treatment which can be prescribed for any one lesion. The proper treatment or combination of treatments depends upon (1) the nature of the skin cancer, (2) its condition, including how far it has progressed, and (3) the situation as to vital structures and skin folds.

The best treatment of all is the destruction of all lesions that may lead to cancer. . . ."

Basic Principles of Cancer Practice: Anderson Nettleship, Little Rock, The Williams and Wilkins Company, 1952.

THE TUBERCULOSIS PROBLEM IN ARKANSAS

J. D. RILEY, M.D.
State Sanatorium

To write an article covering the tuberculosis problem in Arkansas is a big order. Time and space would not permit a full discussion of this important problem, even as the state's financial status and public opinion have made impractical and impossible Section "F," Chapter XXXI, of the 1952 Revision of the Rules and Regulations of the State Board of Health of Arkansas in regard to tuberculosis. However, I shall attempt to write a brief summary which I know will set forth the facts and the progress we have made in combating this disease in Arkansas during the past twenty-three years.

On July 14, 1953, I met with Paul Schaefer, executive secretary of the Arkansas Medical Society, at which time I brought to his attention the letter he had written to me on February 27, 1953, just prior to my appointment by Dr. R. C. Dickinson, president of the Arkansas Medical Society, as chairman of the Committee on Tuberculosis of the Arkansas Medical Society. The letter reads as follows:

"President-Elect Dickinson contemplates appointing you chairman of the Committee on Tuberculosis. Dr. Dickinson is particularly anxious to have all his committees active throughout the year. This will, of course, entail travel and extra work on your part. Dr. Dickinson asks that you carefully consider this appointment and advise this office, at your very earliest convenience, whether or not you feel that you will be able to accept. This office will furnish you all available information on the responsibilities of your committee."

I explained that I should like to correspond with the other members of this committee, and submit to them a resolution which I proposed for adoption by the above-named committee.

I had written in January of this year to the National Tuberculosis Association and inquired as to what regulations, if any, existed for the control of recalcitrant patients. In reply, on February 5, the assistant to the managing director stated: "We do not have a compilation of facts which show how many states have such regulations. However, many states do have regulations of this type and almost all communicable disease laws and regulations adopted by states have some general provision for the isolation of communicable diseases where necessary. In some states these provisions are difficult to carry out and in many others these provisions are ignored."

In my further discussion with Mr. Schaefer on July 14, we concurred that if it was agreeable to the members of the Committee on Tuberculosis of the Arkansas Medical Society that I would write an article on the tuberculosis problem in Arkansas for publication in the **Journal of the Arkansas Medical Society,** and it was agreed that at the proper time he would furnish me with the names of the county medical society secretaries so that I could prepare a statement to be read at the next meeting of each county medical society.

The Committee on Tuberculosis of the state medical society met here at the Arkansas Tuberculosis Sanatorium on August 5, 1953, when the following resolution was passed:

BE IT RESOLVED by the members of the Committee on Tuberculosis of the Arkansas Medical Society that it approves the action of the state board of health in rescinding Section "F," Chapter XXXI, of the 1952 Revision of the Rules and Regulations of the State Board of Health of Arkansas in regard to tuberculosis, entitled "Procedure when patient is a health menace to others," until such time as the State of Arkansas provides a place for the care and treatment of recalcitrant patients.

At the time of this meeting on August 5 I had secured the approval of Dr. W. R. Brooksher, editor of the Arkansas Medical Journal; Dr. Dickinson, Mr. Schaefer, and the Arkansas Tuberculosis Association for this article regarding Arkansas' tuberculosis problem to be written for publication in the **Journal of the Arkansas Medical Society;** and at the meeting the members of the committee recommended unanimously that such an article be written for publication.

The death rate from tuberculosis in Arkansas twenty-three years ago, when I came to Arkansas as superintendent of the Arkansas Tuberculosis Sanatorium, was 80.2 per 100,000 population. The death rate in 1950, the latest available report from the state health department, was 31.3. This means that 19 persons live now in Arkansas each week who would die had the death rate remained what it was in 1929, the year before I came here. The average death rate for the United States in 1949, the latest available

figure from the National Office of Vital Statistics, was 26.3. I strongly suspect that due to the determined efforts of the director of tuberculosis control of the state health department, Arkansas is far above the average in the reporting of tuberculosis cases. In fact, a recent report from the United States Public Health Service states that Arkansas had for the January-June, 1952, period, 83.2 cases in the newly reported, Group A, as compared with the national average of 59.9 per 100,000 population.

The report further points out that "maximum reporting of significant tuberculosis can be obtained only by having reportable categories sufficiently broad that some cases will be reported which ultimately will be shown to have little public health significance. The objective for each health department is obviously to count as many non-significant cases as possible without interfering with the reporting and counting of the significant cases."

It is an obvious fact of importance in the tuberculosis control program that cases must be discovered before patients can be treated.

The recommendation of the Public Health Service for maximum limits under the Hill-Burton program is 2,101 beds for tuberculosis in Arkansas. This is not practical and Arkansas is not financially able to provide the beds recommended by the United States Public Health Service.

The State of Arkansas is carrying a heavy financial burden in its attempt to serve our tuberculous sick in the best possible manner. I do not believe that Arkansas is financially able to provide beds for all patients who have or who might contract tuberculosis. Therefore, I believe we should adhere to the diagnostic standards and classification of tuberculosis in diagnosing and treating the disease as set out in the National Tuberculosis Association's booklet, "Diagnostic Standards and Classification of Tuberculosis." Only through the cooperation of all of you can we do the best job with the facilities we have.

Tubercle bacilli used to be ubiquitous. When I first came to this sanatorium, 90 per cent of all children under 15 years of age reacted positively to the tuberculin test. Even today anyone may be infected with tubercle bacilli, but we find now that only 10 per cent or less have positive tuberculin tests.

A positive tuberculin test proves first infection. First infection causes primary tuberculosis, which, however, calls for no treatment if the infected individual has favorable living conditions and is cut off from the source of infection. But tuberculous disease needs treatment.

Tuberculous disease cannot exist without tuberculous infection, but a large percentage of cases infected with tubercle bacilli do not have and may never develop clinically active disease. Strain and massive infection are what cause active tuberculosis. Education—including sanitary precautions, cooperation, and the best use of all available means—is the only solution to the tuberculosis problem in Arkansas or anywhere else. Every case of tuberculosis is different from every other case. Every human being is different from every other human being; consequently, mathematical exactness cannot be ascribed to any process so inexact by nature as tuberculosis or to human beings.

In recent years we have had the advantage of small X-ray pictures, which enables us to make mass surveys and thereby uncover many cases of tuberculosis which otherwise would go undiscovered. Some of these patients are sick with tuberculosis and are a menace to the health of others because of a positive sputum. Some are sick with tuberculosis although tubercle bacilli have not been found in their sputum. Some are not sick, although they have a positive sputum. But all of them must necessarily be brought under control. And besides all these, there remains a large number of patients who have what we call "stable lesions" or "arrested tuberculosis." It requires discriminating judgment to select those actually needing sanatorium care.

The greatest advance in the tuberculosis control program in many years is the promotion of mass X-ray surveys or case-finding clinics, which are uncovering tuberculosis in time for us to do something about it.

In more recent years, chemotherapy and antibiotics have come to play a definite role in the treatment of tuberculosis in properly selected cases.

Diagnosis and etiology have taken on new values.

BCG was first used by Calmette in France, where he obtained results unattainable in America, but its benefits remain more or less in the experimental stage. And even if BCG does bring about an increased resistance to tuberculosis, it still necessarily causes a period of increased susceptibility to tuberculosis and therefore should not be used in student nurses, medical students, or any others who come in close contact with the disease. Any person having a negative tuberculin test is in more danger of contracting tuberculosis than one whose tuberculin test shows that he has been previously infected with tubercle bacilli. Many leading sanatoriums will not employ

a nurse, nurse's aid, or anyone else who will be in contact with their patients, who has a negative tuberculin test.

I should like now to submit for your consideration a few pertinent facts about the Arkansas Tuberculosis Sanatorium as reported in the "Comparative Analysis of Arkansas State Expenditures," compiled and published by the University of Arkansas College of Business Administration, Bureau of Business and Economic Research. In these, I feel you will find much food for thought as well as considerable gratification as regards the tuberculosis control program in our state.

"Compared with the needs of other states, Arkansas' need for beds for tuberculous patients is not great. Twenty-two states were reported to need more beds than does Arkansas, and 18 of these states are said to need more than 1,000 beds each . . . The sufficiency (at the sanatorium at Booneville) results, in part, from a successful 'leave of absence' program which permits a patient to leave the sanatorium for three months when his physical condition permits and after he has demonstrated an ability for self-care. Such patients are given detailed instructions in self-care in their homes and how to recognize symptoms of recurrence of their ailment. They are given periodic examinations and are returned to the sanatorium if they fail to make satisfactory progress toward recovery at home. . . .

"During the fiscal year 1952, there were 1,557 admissions to the sanatorium and 3,467 persons were treated. Some 815 persons took leaves of absence. There were 39 persons on the waiting list at the end of the year.

"The Arkansas Tuberculosis Sanatorium at Booneville is regarded by many persons as one of the better hospitals in the state. The American College of Surgeons reported: '. . . full approval was given the institution'."

Arkansas has just cause for pride in what it has done and is doing in its tuberculosis control program. This is one of the examples in which all the people have shown concern for the welfare of those few among them who were—or will be—unfortunate enough to succumb to tuberculosis, a disease so unrelenting in onslaught, and no respecter of persons, young or old, rich or poor. But the fight is not yet finished. It is highly important that the public be fully informed as regards the tuberculosis problem in its more subtle phases as well as in its obvious aspects. Tuberculosis is on the decline, but it is not licked.

Nearly all people know something about tuberculosis—and usually the less they know about it, the more they think they know about it. It is vital that they all know more and that their information be exact.

All of us—patients, the state health department, and physicians alike—cooperating together can carry on the good work that we have been and are doing. I solicit the cooperation of all of you.

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

POST-OPERATIVE CARE TO PREVENT RECURRENCE OF KIDNEY STONES*

GRAYSON CARROLL, M.D.
Saint Louis

The prevention of recurrence of urinary calculi begins at the operating table.

Obstructions must be eliminated and stone bearing areas removed. The most common obstruction is at the ureteropelvic juncture, necessitating the ligation of an aberrant vessel, some plastic operative procedure, or the splinting of a strictured ureter.

To remove a stone bearing area from the kidney, a calicealectomy or heminephrectomy is required. This is a most gratifying procedure.

Hyperparathyroid disease should be suspected in all stone cases wherein there is increased calcium and decreased phosphorous in the blood. The parathyroids should be explored before the kidney surgery is performed.

The removal of bladder stones should always be secondary to correcting of the obstruction at the bladder neck which is present; ofttimes due to a contracture or prostatic obstruction.

This discussion, however, pertains principally to the management of the patient after he has returned home.

* Read before Annual Session of Arkansas Medical Society Meeting, Little Rock, Arkansas, April 21, 1952.

All stones removed should be analyzed chemically since the postoperative therapy depends on the nature of the stone. Stones may be divided into two classifications for clinical purposes.

(1) PRIMARY—which includes uric acid, oxalate, cystine and xanthine stones. These are probably not caused by infection and commonly are not accompanied by infection.

SECONDARY

(2) The second group includes the magnesium, calcium phosphate carbonate, calcium phosphate, and the calcium carbonate. These recur many times due to infection.

Primary stones are usually dietary problems. These are uric acid, cystine, xanthine, and oxalate stones. Infection may accompany these but are not the cause of their formation.

URIC ACID STONES—Uric acid stones are often found in gouty subjects with acid urine and uric acid crystals easily detected. Patients should be advised to avoid spices, condiments, glandular organisms, such as sweetbreads. Vinegar, chocolate, and meat broths should also be avoided. Red meats should be prescribed only once a week and chicken, fish, and eggs substituted for the meat diet.

An alkaline urine is preferable, maintained best by 2 drams of sodium citrate 3 t.i.d. The uric acid content of the blood should be determined from time to time, if this test is available. Uric acid stones are often nonopaque to the X-ray and recurrence is observed only by the return of pain or blood in the urine.

OXALATE STONES—Calcium oxalate stones may appear in an alkaline or an acid urine and comprises the majority of the small ureteral stones unaccompanied by infection. A low oxalate diet should be prescribed. Spinach, potatoes, beans, tomatoes, liver, sweetbreads, cocoa, chocolate, and tea should be avoided since these foods result in a high oxalate output.

CYSTINE STONES—Cystine stones are seldom seen and are often nonopaque to the X-ray and appear in an acid urine. To avoid recurrence, a stricter alkaline ash diet should be followed, supplemented by sodium citrate in doses sufficient to produce an alkaline urine. The patient should be provided with nitrazine paper and instructed to test the urine daily.

The recurrence of the triple phosphate stones (magnesium ammonium phosphate), calcium phosphate, and calcium carbonate stones are in large part due to infection and hypercalcinuria or hyperphosphaturia. The hyperphosphaturia may be decreased by avoiding foods high in phosphates. These consist of lima beans, beets, carrots, prunes, raisins, and almonds. Foods high in calcium are largely the dairy products such as milk and cheese. It is desirable to maintain an acid urine and therefore an acid ash diet is preferable.

Doctors Shorr and Carter recommend basaljel to prevent the reformation of renal phosphatic calculi. This aluminum hydroxide gel was demonstrated by them to cause the phosphates to be eliminated in the stool and drawn away from the kidney and urine. The dose is around 30 cc. 3 t.i.d. It is a harmless medication and deserves consideration in patients who are intractable.

Infection is the prime cause of recurrence in these calcium phosphate and calcium carbonate stones; therefore, the postoperative treatment must be directed toward the elimination of the accompanying infection.

The urea splitting organism causes the decomposition of urea to form ammonia and carbon dioxide. This highly alkaline state changes the soluble monocalcium phosphate to the more insoluble dicalcium phosphate.

In a study of 400 organisms made in our laboratory, it was noted that practically all of the Proteus organisms and about 50 per cent of the Staphylococcus and Streptococcus organisms cause the decomposition of urea. Only 8 per cent of the Pseudomonas and 1 per cent of the B. coli have this factor.

We may, therefore, conclude that if we have a persistently alkaline urine with a gram negative rod on smear, it is most probably the Proteus, and a simple gram stain will easily identify the Staphylococcus infection if present. An analysis of the effectiveness of the various chemotherapeutic agents and antibiotics available to us at present indicate that the Proteus infection is best inhibited by chloromycetin and gantrisin. The chloromycetin should be given in very large initial doses. One gram every half hour for 3 doses will produce a blood level of around 60 mg. Thereafter, 250 mg. given every 6 hours usually suffices. Gantrisin effectively inhibits the Proteus in 70 per cent of the cases and should be given in fairly large doses, such as 3 tablets every 6 hours. In persistent infections we find the combination of chloromycetin and gantrisin to be very effective.

Penicillin is considered to be the drug of choice in the Staphylococcus and Streptococcus infections, however, a high percentage of the Staphylococcus infections we now encounter are re-

sistant to penicillin. Nichols and Needham of the Mayo Clinic found 68 per cent of the Staphylococci isolated on the surgical service were resistant to penicillin. We still recommend the use of penicillin but should this fail terramycin and aureomycin are recommended since the organisms resistant to penicillin are usually susceptible to aureomycin or terramycin.

Encrustations forming around or in retention catheters or nephrostomy tubes are good examples of the effect of the urea splitting organisms. Gantrisin and mandelamine should be given continuously, and the catheter changed at least once a week in such cases.

The organisms often found in the urinary tract, but which do not have the property of splitting urea, are the Aerobacter, Intermediate, B. coli, Alcaligenes, and the Pseudomonas. When these are found in patients who have had stones, the infections should be eliminated, however, this group of organisms is less likely to give rise to recurrence of stone.

The Aerobacter is inhibited by aureomycin. The B. coli and Streptococcus fecalis are inhibited by mandelamine; the Intermediate and Alcaligenes by aureomycin. The Pseudomonas is inhibited by terramycin and aerosporin. The Proteus, as mentioned above, is inhibited by chloromycetin and gantrisin.

Vermeulen and associates have shown that a large intake of fluids will prevent the reformation of calculi in rats. It is advisable that the patient be well impressed with the necessity of habitual ingestion of at least eight glasses of water daily in addition to the other liquids consumed.

A yearly checkup, including a roentgenogram of the kidneys, ureters and bladder, should be done and if obstructive lesions were a factor in the original causation of the stones, intravenous pyelograms should also be performed.

Butts is pursuing investigational work on the use of hyaluronidase which apparently increases the colloids of the urine. This may give us another method of attacking this problem.

By following the measures here outlined, the incidence of recurrence of stones has been reduced from 14 per cent to 4 per cent, therefore, the application of the known facts concerning stone formation is worthwhile even though there are many problems yet to be solved.

SLIDES

1a. Stone in lower calix.
1b. Pyelogram showing stone bearing area in lower calix.
1c. Heminephrectomy, removing stone bearing area.
2. Heminephrectomy for stone in reduplicated pelvis.
2a. Flat plate showing stone.
2b. Pyelogram reduplication of pelvis and ureters.
2c. Pyelogram reduplication of pelvis and ureters.
2d. Postoperative upper pelvis—the stone removed.
3. Composition for renal and ureteral calculi.
4. Stone cases with infection.
5. Decomposition of urea by bacteria (urea splitting organisms).
6. Proteus vulgaris (in vitro).
7. In vitro sensitivities of 641 organisms.
8. Drug of choice.

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CORRESPONDENCE

To the Editor:

At the close of the day on September 3, 1953, the Division of Communicable Disease Control of the Arkansas State Board of Health had received 305 postal cards from the physicians of the State reporting the results of the use of polio gamma globulin in contacts to cases. These cards reported 320 contacts. (A card on each contact was requested, but some few came in with two or more contacts recorded.) Of this group of 320, only one case of poliomyelitis developed following administration of gamma globulin. It is desired that our thanks be extended to the doctors for this excellent response. Since the postal card report is not to be made until four weeks have elapsed since administration of the G. G., it is anticipated that many more reports will be received. Approximately five-eighths of the polio gamma globulin originally allocated to the State has been distributed.

Again let me express my appreciation to the physicians for their excellent cooperation in sending in the cards.

A. M. WASHBURN, M.D., Director
Division of Communicable Disease Control.

WANTED

Qualified physician, Benton Unit, Arkansas State Hospital. Psychiatric experience desirable, but not essential. Good salary plus small apartment with complete maintenance for self and wife. Pleasant working conditions. Contact Cleve C. Odom, M.D., Superintendent, Arkansas State Hospital, Little Rock.

RECENT TRENDS IN THE DIAGNOSIS OF CANCER*

JAMES H. GROWDON, M.D.
Little Rock

In considering a few of the recent trends in cancer diagnosis it would seem well to point out some of the things that are as yet not accomplished, the usefulness of certain procedures that are somewhat specialized, and finally some of the very practical aspects of the problem as we see them daily in our practice.

The development of a diagnostic over all blood test for the diagnosis of cancer in general has intrigued many minds over the years. The past ten years has seen a revival of this interest and many false hopes aroused as one or another new test was announced as the possible answer. Homberger[1] in reviewing the subject grouped these tests as those studying chemical, immunological or enzymological changes in the blood, urine, tissues and secretions. Now fewer than sixty tests were reviewed. While many chemical and metabolic differences of cancer and normal tissues have been demonstrated, no such diagnostic method has been devised. All have given too many false positive and false negative reactions to be of practical significance. The research of recent years has tended to show that probably this concept can never be achieved. Eventually certain tests may be developed which will detect one or certain tumors but there is no reason to believe that any one test could be devised for cancer any more than one test could be used for all infections.[2]

If we will forget the desirability for a panacea and interpret certain tests in the light of other clinical findings, as we must do with all other laboratory methods, there are several very useful tests. These can be used, on occasion, in **establishing the diagnosis**, in **determining the effect of treatment**, and sometimes in **determining the prognosis.**

The blood level determination of the enzyme acid phosphatase is most helpful in establishing the diagnosis of carcinoma of the prostate. Elevations above 5 KA units are very suggestive and when 10 or more KA units about pathognomonic.[3] The effect of therapy may also be noted by serial studies. Unfortunately, these elevations occur only late in the course of disease after metastasis has occurred.

The determination of the alkaline phosphatase level may aid in diagnosing primary tumors of bone and metastatic lesions of bone and even liver. Excluding liver or kidney disease it is a measure of osteoblastic activity. Again the test is not specific and must be interpreted in view of other clinical findings.

Hormonal assay of gonadotrophic hormones is useful in the diagnosis and follow-up studies of certain tumors of the testicle or of hydatid mole and chorionepithelioma. Certainly every patient should be carefully followed in this manner after the removal of the hydatid mole. An early chorionepithelioma may thus be recognized. Similarly the effect of therapy of a chorionepithelioma may be followed. Assay of the 17 ketosteriods is helpful in the diagnosis and follow-up of tumors of the adrenal cortex and interstitial cell tumors of the testicle. Fractional determinations may aid in distinguishing between benign hyperplasia or tumor from a malignant tumor.[4]

The cytologic diagnosis of cancer from a study of the cells cast off in the secretions of the various body cavities has proved to be a very valuable procedure in some laboratories where special interest has been developed. Unfortunately these facilities are available only to a few. Their use in the average general pathology laboratory has not proved practicable. This method should be considered an adjunct to, rather than a substitute for, actual microscopic study of cut tissue sections. The fields of greatest usefulness have proved to be in the study of the secretions of the female genital tract and of the respiratory tract. In our medical school cytologic methods have been largely limited to special studies. One survey of 2,000 patients at the State Mental Hospital conducted by the Department of Gynecology yielded eight cases of carcinoma of the cervix, five of which were not clinically evident on routine examination. A similar survey of 1,000 unselected patients at the University clinics disclosed two like cases. As a matter of interest it should be noted that the cytological method of study has been successful in diagnosing carcinomas of the kidney, bladder, prostate, esophagus, stomach, duodenum, biliary passages, pancreas, large bowel and breast, in addition to those previously mentioned. One of the more intriguing recent developments has been the use by Panico, Papanicolaou and Cooper[5] of an abrasive balloon which is introduced into the stomach for the securing of cells that had not been destroyed by the acid peptic digestion. Positive reports with

* Read before the Arkansas Academy of General Practice, Little Rock, 1952.

this method have risen to 68 per cent in their hands in carcinoma of the stomach.[6]

The use of radioactive or radioactive tagged materials to diagnose tumors has been a fertile field of investigation. Certain neoplastic tissues have the ability to take up more of these substances than surrounding normal tissues. The difference can be measured with a Geiger counter.

Perhaps the most promising studies from the diagnostic standpoint concern the diagnosis and localization of brain tumors. Radioiodine tagged didofluorescein and human serus albumin similarly tagged are the best available materials at the present time.[7] Radioactive potassium (K^{42}) and phosphorus (P^{32}) among others have been used. The radioactive material is administered and after a period of time, depending upon the substance used, measurements are taken with a Geiger counter over plotted areas of the skull. Davis and co-workers[8] have reported an accuracy of over 90 per cent in one group of 340 patients in which this method was used.

Recently at the university we have been concerned with two other methods, neither original, which have been carried out for the most part on the urology service. One is the injection of air into the retroperitoneal tissues by a presacral route which on X-ray study outlines very effectively the retroperitoneal structures, particularly the kidneys and suprarenal glands. The second method involves a study of the vascular pattern of the kidney on X-ray after aortic injection of a contrast medium such as diodrast. A simultaneous utilization of these methods is also being studied.

The desirability of an early diagnosis has been repeatedly emphasized and its value universally accepted. There seems to be some confusion, however, as to what constitutes an early diagnosis. The duration of symptoms is a poor criterion because of the great variability in the spread of various tumors. It should be emphasized that the important thing is to diagnose these lesions when they are localized, before spread has occurred. Theoretically every tumor should have this favorable period in its evolution when cure could be obtained by local destruction using surgery or radiation therapy.

If this is to be accomplished, many of the older classical descriptions of disease as presented in textbooks of yesteryear, even today, must be disregarded. The idea of "waiting to see" what happens to a lesion must be cast aside for a more aggressive attitude. The quite famous adage of "do it now" can aptly be applied to cancer diagnosis as "biopsy it now."

For practical purposes of diagnosis in everyday practice it seems worthwhile to remind ourselves, as emphasized by Slaughter,[9] that 85 per cent of cancers are accessible. By this it is meant that they are visible to the naked eye, palpable, or can be seen through the cystoscope, bronchoscope or gastroscope. The corollary for this is that there is no substitute for a careful history and a complete physical examination. The use of a headlight and mirror or the proctosigmoidoscope should not be considered a specialized procedure. We attempt to familiarize every medical student with their use. Being accessible to the above means of examination means also being accessible to biopsy. Biopsy should be obtained with very few exceptions in every instance before therapy is instituted. It is only in this way that the proper diagnosis can be made and correct treatment instituted.

It is the impression of those working in our tumor clinic that we are seeing fewer cases of the far advanced superficial accessible cancer than we did several years ago. It is encouraging that the intensive lay and professional educational programs of the past few years are reaping some benefit. The work of the American Cancer Society and the State Cancer Commission in this state is to be especially complimented. It should be pointed out, however, that we are still seeing too many of these advanced cases and that this is no time for the intensive efforts to be reduced.

On the other hand there has been very little, if any, change towards an earlier diagnosis, however, in the accessible group of cancers requiring endoscopy or even just a rectal examination for detection. If the cases we see in the tumor clinic are representative of the state in general much more emphasis is needed on these means of examination. A higher degree of suspicion needs to be maintained toward minor complaints related to the pulmonary and digestive systems in particular. X-ray studies should not be delayed. The necessity for repeat examinations should not be forgotten. Fewer obscure pulmonary shadows on X-rays should be followed and more explored by thoracotomy. Any disfunction in swallowing deserves a complete study of the esophagus. Every gastric ulceration must be considered as malignant and explored surgically if "complete" healing is not accomplished in "several weeks." Rectal bleeding must not be assumed to be a symptom of hemorrhoids. A digital and anoscopic examination along with a barium enema will not suffice. Lesions of the upper rectum and rectosigmoid will often be missed without a sigmoidoscopic examination.

Only a few examples of the more common glaring mistakes and omissions have been mentioned. We see the results only too often in the tumor clinic and, unfortunately, have been guilty ourselves in some instances of these errors. It behooves all of us to reduce them to an absolute minimum and to remember that many times we, as physicians, are as much to blame as the patient that his carcinoma may be hopelessly advanced before treatment is instituted.

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"FLUID BALANCE—EVERYONE'S SPECIALTY"

ALFRED KAHN, JR.
Little Rock

Problems of fluid balance are not limited to any type of practice or specialty; there are no boundaries that confine salt or fluid loss to any one group of diseases. This problem then becomes of particular interest to all physicians.

There is no clearer or simpler means of describing salt-water relations than Gamble's Method. Simply stated, salts when dissolved in an aqueous solution become ionized and take on a positive or negative electric charge. Furthermore, since the blood and interstitial fluid are almost neutral in reaction, the basic and acidic ions must be virtually equal. Gamble shows the basic ions as an upright column and the acidic ions as an upright column against the basic column. Any inequality in the height represents a salt imbalance.

Thus, one of the cardinal concepts in salt balance is that the total of the basic ions must approximately equal the total of acidic ions. An approximation of this can now be done at the bedside. To perform this one does not add the milligrams of each chemical, for one gram of sodium does not carry the same amount of basic charge as one gram of calcium. There is a common denominator for making these additions, called the milliequivalent.

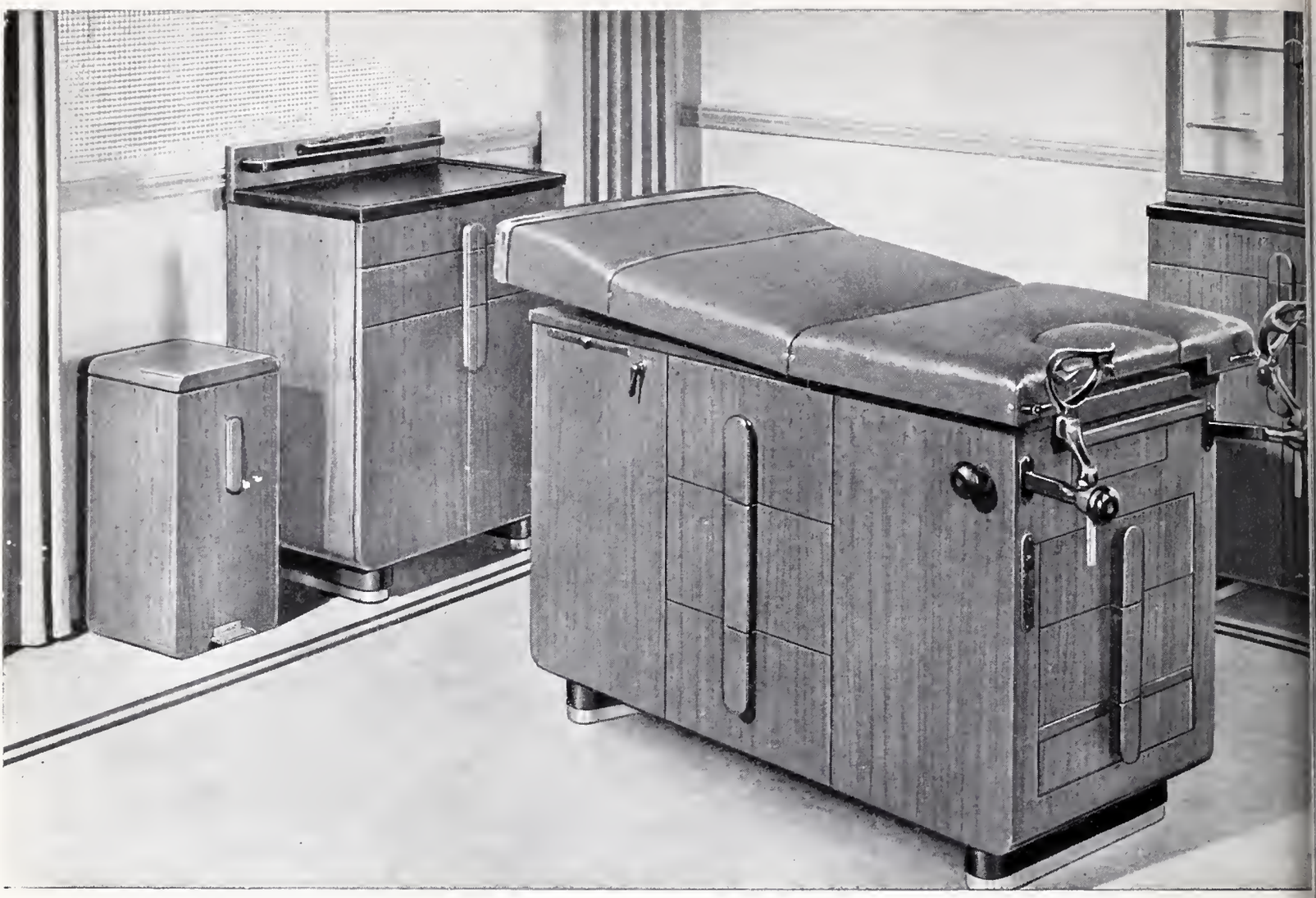
All laboratories should report chemicals used in salt-water balances in milliequivalents. Using milliequivalents, one can add a column of different chemicals. All the basic chemicals are added in one column and the acidic in another; they should approximately balance.

There are three fluid compartments in the body: the blood; the interstitial fluid which surrounds the cells; and the intracellular fluid which is in the cells. Of the three compartments, only the salts in the blood are able to be measured by clinical means. From the salt balance of the blood, one may obtain certain inferences as to the other fluid compartments, particularly if this is coupled with some knowledge of what fluids leave the body either by vomitus, urine, stool, or etc.

The absolute level of these salts in the different compartments is not the same. Most important of these differences is that Sodium is the principal basic in the blood, whereas Potassium is the principal basic ion inside the cells. If Potassium leaves the cells it may accumulate in the blood or it may spill out in the urine. Thus, although there may be quite a change in the amount of Potassium in the cells, just measuring Blood Potassium without taking into account salt intake and output would not show this change. Of more than passing interest is that when Potassium leaves the cells and there is a deficit in the body, if Sodium is given it will enter the cells in place of the Potassium and will have a harmful rather than a beneficial effect.

Although commercial solutions are currently available to correct ion imbalances, these solutions are potentially very dangerous unless they are used with a full clinical knowledge of the patient's condition and a means of measuring at least the blood salts. No one can order fluids from the laboratory; this is just half of the patient's picture; fluid ordering is the clinician's duty.

A laboratory aid necessary for salt balance that every modern hospital should have is a flame photometer. Without this instrument, the laboratory will take almost a day to perform the chemical analyses necessary. With a flame photometer, these tests can be performed in minutes. The clinician can then formulate his therapeutic plans for the patient in a short period after the blood has been drawn instead of waiting twelve hours or more.



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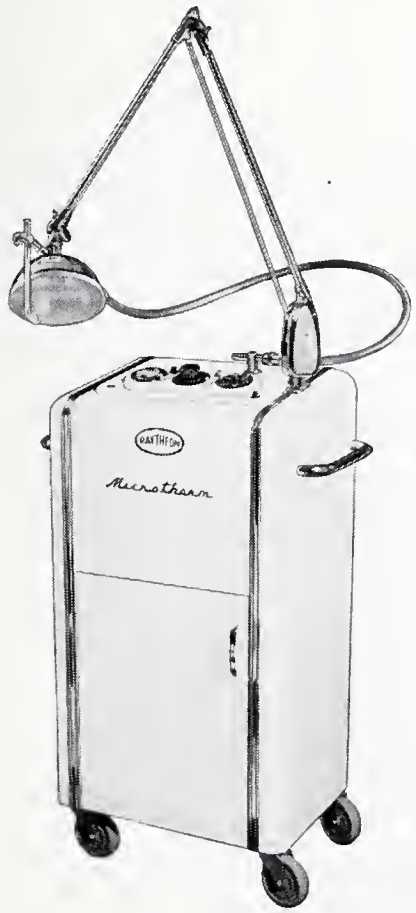

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★ Editorial ★

October, 1953

RESOLUTION OF THE ARKANSAS ECLECTIC MEDICAL ASSOCIATION

The following resolution, adopted by the Arkansas Eclectic Medical Association, June 4th, 1953, will be of interest to members of the Arkansas Medical Society.

Whereas, There has been rumors and accusations that members of this Association and licentiates of The Eclectic State Medical Board have been engaged in unethical practice of medicine to the extent that it has reflected unfavorably upon the entire Association and Board; therefore,

Be it RESOLVED, That this Association in regular assembly on this date, go on record as disapproving all unethical practice according to the rules adopted by the majority of all medical doctors in the State of Arkansas; and

Resolved, That any Eclectic physician who engages in any practice that is prohibited the members of The Arkansas State Medical Society—that he withdraw from this Association or have charges preferred against him, and

Be it further RESOLVED, That the Eclectic State Medical Board be instructed to stop any such unethical practice in the State or use all the authority vested in it by law to suspend or revoke the license of such doctor.

Also, be it resolved, That the Secretary be instructed to mail a copy of this Resolution to the Presidents and Secretaries of the State Medical Board of the Arkansas Medical Society and to the Pulaski County Medical Society and invite them to call our attention to any such violation.

YOUR JOB

FOUNT RICHARDSON, M.D.
Fayetteville

One of the tough jobs in medical organization work is to watch national trends and especially watch for legislation which is unfriendly and damaging to the medical profession. Fortunately, there are a number of organizations who help in that matter.

But there's one job that is harder.

It's really a tough job to interest **Physicians** in their own welfare.

In the last days of Congress a bill was introduced into the House of Representatives which would **force** Physicians, Dentists, Lawyers, and others on the "Social Security" rolls, yet how many physicians have noted that in their newspaper or the Journal?:

This editorial is calling attention to HR 6812 by Congressman Reed of New York. It forces each physician to collect a tax for what is called "Social Security Insurance Fund" and promises you less than a living wage if you quit work at 65 and promises you **nothing** in return—if you work after 65. It is a dishonest tax. Every physician, dentist, and lawyer ought to contact immediately his Representative in Washington and see that he stand up and be counted against the vicious steal from the selected professions.

And, Doctor, if you won't fight for your professional independence, who do you think will?

PERSONAL TRIBUTE FROM DR. ROBERT CALDWELL

Before Dr. Calcote came with Dr. Mahoney and me in 1926, he asked me if he should take a post-graduate course in Ophthalmology. My answer was no, go buy two of the latest books on Ophthalmology and let me teach you to do refractions. Then when a patient comes of poor vision or hurting eye, I will make a diagnosis and outline the treatment. You go home and read all you can about such cases and report to me the next morning what the latest recommendations are about such cases. He gave me much valuable information. Now in a couple of years take a post-graduate course. This he did in Vienna and London. He gained much knowledge and valuable information on Ophthalmology in Vienna and London. He was one of the most thorough and able men I have ever met and always placed the welfare of the patient first, money matters second. He was never happier than when he sent a patient from the Blind School home able to see enough to go to public school. When he was called to service in the second world war, he made no effort to be deferred on account of being essential. I personally deeply mourn his departure not only as a loss of a personal friend but as a loss to the members of our Society and to the citizens of this community.

Sincerely,
ROBERT CALDWELL, M.D.

PUBLIC Physician Patient Personal RELATIONS

Each and every one of us who practices medicine in this Nation owes a great debt to organized medicine for our success and community standing. Many of your predecessors and your contemporaries have given unselfishly of their time and effort and money. The respect and

esteem enjoyed by us today is largely due to the energy and devotion of others who struggled to attain and maintain the high principles of medical practice as we know them.

Organized medicine has been responsible for high standards of education and training; for protection against encroachment on our civil and professional rights; for legal action against quacks and cultists; for health education for the laity; for advances in Public Health and for many other valuable activities in the field of medicine.

Each of us in the practice of medicine has a moral obligation to contribute of our effort, our influence and our resources for the good and the advancement of the field of medicine as a whole. Each physician should be an active member of the appropriate medical societies—both jurisdictional and scientific. He should gladly accept and discharge any duty or responsibility conferred upon him. Some practitioners draw into their own practice and take no part in fulfilling their obligation to the profession. Indeed, some few even criticize, rarely openly, all of the efforts of their colleagues who are trying to do their share.

If medical men are to be looked upon as leaders in our field we must lead. Each of us should contribute generously in effort and money to whatever activities are good for organized medicine. For instance, have you contributed to the American Medical Education Foundation?

C. LEWIS HYATT

SENIORS VISITING LILLY LABORATORIES

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

TREND OF TUBERCULOSIS MORBIDITY

By Julius Katz, M.D., The American Review of Tuberculosis, March, 1953.

In contrast to well-documented evidence of the marked decrease in mortality from tuberculosis during the past 50 years or more, there is a dearth of reliable information regarding morbidity from this disease. The number and ratio of deaths and reported cases are used, therefore, to estimate the trend of morbidity. Recent reports based upon these statistical data conclude pessimistically that, while the number of deaths and the death rates from tuberculosis have decreased considerably since 1900, the rate of development of new cases of this disease has not changed or is increasing.

It has been stated by Edwards and Drolet that "a widening gap is developing between the tuberculosis morbidity and mortality in the United States," while Drolet and Lowell conclude that "it is primarily institutional care, or rather improved medical and surgical treatment of active cases of tuberculosis, which is now modifying so favorably the mortality record. Where tuberculosis campaigns remain weak, however, is still in the field of prevention with regard to reducing outbreaks of new cases of tuberculosis."

The conclusions to be drawn from these statements are that tuberculosis is mainly a clinical problem and that tuberculosis control programs have failed to prevent the spread of the disease. In this paper the available morbidity data are reviewed in an effort to determine the trend of the incidence of tuberculosis for Upstate New York (New York State exclusive of New York City).

Before considering morbidity, however, the effect upon the reduction in death rate of institutional care, or of improved medical and surgical treatment of active cases of tuberculosis, needs consideration. In order to make it clear that factors other than hospitalization and treatment are involved in the declining death rate, it is only necessary to point out that the decline is not of recent origin. In Upstate New York facilities for the hospitalization of the tuberculous were quite limited until approximately 1915. During the early years of this century treatment was limited mainly to bed rest, with pneumothorax and surgery being used infrequently. Nevertheless during these years there was a continuous decrease in the death rate. Even after specific therapeutic measures came into common usage, their effect was not reflected by sharp changes in the death rate since 1900. Until recently the percentage of patients who received such specific treatment for tuberculosis was too small to affect the death rate significantly.

For additional evidence that the decrease in the tuberculosis death rate is not entirely dependent upon specific therapy, the experience in the control of tuberculosis among patients in state mental institutions may be cited. During the 10-year period beginning with 1941, the rate of decrease of tuberculosis mortality among these patients has been similar to that for New York State as a whole. This similarity in change in death rate among mental patients (whose average age is approximately 52) to that in the general population (with an average age of approximately 35) is an indication that factors other than specific treatment are also involved in the reduction of deaths from tuberculosis.

It appears, therefore, that the hospitalization of tuberculous patients and their treatment are not the only causes of the changes in death rates. Of equal importance to those concerned with the control of tuberculosis is the validity of the statement regarding failure in the preventive phase of tuberculosis campaigns.

Since accurate information regarding the incidence of tuberculosis in the general population is non-existent, Drolet and Lowell use the number of reported cases and the ratio of cases to deaths as indices of the rate of development of the disease. They discuss the marked decrease in the number of deaths from tuberculosis between 1930 and 1950, during which time the number of cases reported annually remained the same so that the ratio of cases to deaths ("community case fatality") decreased from 70 to 29 per cent. They infer that the incidence of tuberculosis has not decreased during this 20-year period.

These data, however, do not take into consideration the number of persons examined and the percentage yield of cases of tuberculosis. While the number of cases of tuberculosis reported an-

nually may be a reasonably accurate index of the trend of the annual incidence rate, this is true only when case-finding activities remain at the same level year after year. In studying the trend in incidence, the percentage yield of cases of tuberculosis among those examined is more important than the total number of cases found annually. If the composition of the groups examined remains essentially unchanged and the rate of development of new cases is constant, the percentage yield of new cases should also remain constant. On the other hand, any change in percentage yield of new cases in such groups may be due to a corresponding change in the incidence rate. For the study of the trend in incidence, data obtained from official case-finding activities in Upstate New York are used.

Tuberculosis hospital clinics: In spite of an increase of 40 per cent in the number of persons examined in 1948-1950, compared with 1939-1941, there was a decrease in the number of cases reported from the clinics of state and local tuberculosis hospitals in Upstate New York. The percentage yield decreased 40 per cent during this time, from 2.8 to 1.7. Part of this decrease may be due to the fact that during the later years groups of patients reporting for roentgenograms only are included. Among these groups the tuberculosis case yield is lower than among contacts and suspects. The decrease in the total number of reported cases, as well as the lower case yield, is evidence of a decrease in the incidence of tuberculosis in the population served by these hospitals.

Community survey and general hospital admissions: Similar results were obtained among persons examined in community surveys and those examined roentgenographically upon admission to general hospitals in Upstate New York. In spite of a 57 per cent increase in the number of examinations in 1950-1951, compared with 1948-1949, there was an increase of only 21 per cent in the number of cases diagnosed, while the percentage yield of cases of tuberculosis decreased 22.9 per cent. The lower percentage yield of new cases of tuberculosis in these large segments of the upstate population can be due only to a decrease in the rate of development of new cases. It is probable that this reduction in incidence is an important cause of the decrease in tuberculosis death rates.

A study of the total number of cases reported and the case rates for the past 16 years in Upstate New York shows that the ratio of cases per 100,000 population decreased from a three-year average of 99 in 1935-1937 to 68 for 1948-1950. Part of the decrease may be due to a larger number of persons examined in mass surveys, among whom the percentage yield is lower than among contacts, suspects, or hospital admissions. The fact that the trend over the years for the entire population is toward a lower rate, as it is in the special population groups just mentioned, suggests a similar basic cause, a reduction in the incidence of the disease.

In spite of the decreasing incidence and number of deaths, tuberculosis still remains high on the list of causes of illness and death, and requires continuation of all efforts for its control. Those concerned with the effect of tuberculosis upon the public health are, nevertheless, entitled to know that the disease is yielding to these efforts.

OBITUARY

OBITUARY

CADMUS M. BROOKS, age 62, Little Rock, died September 2nd. A graduate of the University of Arkansas School of Medicine in 1910, he had practiced his specialty of anesthesia in Little Rock since 1929. He was a member of the Pulaski County Medical Society, the Arkansas Medical Society, the American Society of Anesthesia, the International Society of Anesthesia and a Fellow of the American College of Anesthesia. He was a member of the Masonic bodies and of the Winfield Methodist Church. Surviving are his wife, a son and three daughters.

FRED W. HARRIS, age 55, died at Little Rock August 16th. Born in Woodruff County, he attended Searcy High School and Ouachita College, graduating from the University of Arkansas School of Medicine in 1929. Following internship at Touro Infirmary, New Orleans, he was associated with the Trinity Hospital group in Little Rock until 1935, entering private practice in Little Rock that year. He was a member of the Pulaski County Medical Society, the Arkansas Medical Society and the American Medical Association, a member of the staffs of the Baptist and St. Vincent's hospitals and consulting cardiologist to St. Anthony's Hospital in Morrilton, a member of the American College of Physicians, the American Heart Association, the Southern Medical Association and the International Heart Congress. He was active in the Arkansas Heart Society and served as a delegate to the International Heart Association in Paris, France, in 1951. He was a member and deacon in the First Presbyterian Church, a member of the Masonic bodies and of the Riverdale Country Club. He was a diplomate of the American Board of Internal Medicine. Surviving is his wife, his mother, a brother, and a sister.

JOHN N. ROBERTS, age 42, died at Little Rock, August 15th. He was a member of the Pulaski County Medical Society, the Arkansas Medical Society, the American Medical Association, the Southwestern Urological Society, the Association of American Physicians and Surgeons, the Masonic bodies and of the Riverdale Country Club. During World War II he served with the naval medical corps. Surviving are his wife, a son and a daughter.

RESOLUTION

WHEREAS, an all-wise Providence has seen fit to remove from our midst, Dr. Royal J. Calcote, on June 28, 1953, who was a valued co-worker and a faithful member of the Pulaski County Medical Society, Arkansas Medical Society and the American Medical Association, Diplomat of the American Board of Ophthalmology and a Fellow of the American Academy of Ophthalmology and Otolaryngology, we the members of this Society mourn and deeply regret his sudden departure. He was born in Ruston, Louisiana, September 11, 1893, married to Irene Smith in Little Rock on March 2, 1922. Attended the University of Arkansas School of Medicine and graduated in the year 1917. On December 14, 1917, enlisted in the United States Naval Reserve Force and served for a period of four years, held the rank of Lt. J. G. as Assistant Surgeon at the Municipal Hospital at Philadelphia, Pennsylvania. From Philadelphia, he was ordered to the United States Naval Medical School in Washington, D. C., and from Washington, he was ordered to the Naval Hospital at Chelsea, Massachusetts, where he was given the rank of Lieutenant on September 9, 1919. He served his internship in Boston. After he was discharged from the service, he entered into private practice of Ophthalmology in the year 1921 in Little Rock, Arkansas. He was Secretary of the Pulaski County Medical Society from 1924 through 1927 and was elected President of the Society in 1928. In the year 1926 he became associated with the firm of Caldwell and Mahoney. In 1942 he entered the second world war with the rank of Lt. Commander; was stationed at various hospitals and later shipped overseas, serving his country in the South Pacific area. At the conclusion of World War II, he was discharged with the rank of Captain.

WHEREAS, as a Physician in his chosen field, he attained a great measure of distinction and won the respect of his colleagues, as well as the gratitude and love of a host of friends.

THEREFORE, be it resolved, that the Pulaski County Medical Society express to his family the esteem in which he was held as a member of the Society and its heartfelt sympathy to the family at the untimely loss that they have sustained.

BE IT FURTHER RESOLVED, that a copy of this resolution be made a matter of record and placed in the Archives of the files of the Society; that a copy be sent to the family and a copy to the **Journal of the Arkansas Medical Society.**

This resolution is respectfully submitted to the members of the Pulaski County Medical Society by your committee.

ROBERT CALDWELL, M.D.
K. W. COSGROVE, M.D.
M. J. KILBURY, M.D.

PROCEEDINGS OF SOCIETIES

The Arkansas Chapters, American College of Surgeons and the Southwest Clinical Congress met in joint session at Hot Springs National Park September 18th. Drs. Denton A. Cooley, Houston, and Cyril J. Costello, St. Louis, discussed "Management of Massive Gastro-Intestinal Bleeding" and case reports were given by H. A. Causey, Pine Bluff; M. C. Hawkins, Jr., Searcy; Roy I. Millard, Russellville; H. E. Mobley, Morrilton, and John D. Olson, Fort Smith. Officers elected are President, T. P. Foltz, Fort Smith; Vice-president, Roy I. Millard, Russellville; Secretary, Peter O. Thomas, and Councilors, Jos. F. Shuffield, Little Rock, M. C. Hawkins, Jr., Searcy, and John D. Olson, Fort Smith.

Proceedings of Societies —

Harry E. Murry, Texarkana, addressed the Sixth Councilor District Medical Society at Prescott August 18th on "Treatment of Massive Gastric Hemorrhage."

The Sebastian County Medical Society was addressed September 8th by Louis Lambiotte on "Indications for Cardiac Surgery."

E. Z. Hornberger, Secretary.

The Tenth Councilor District Medical Society met in dinner session at Fort Smith September 15th. The following program was presented: M. B. Hoge, "Operative Treatment of Peptic Ulcers"; Hoyt Kirkpatrick, "Acute Knee Injuries"; Ralph A. Downs, "Recurrent Pyuria in Children," and H. C. Darnall, "Pulmonary Resection in Tuberculosis." Officers elected are Guy Shrigley, Clarksville, President, and D. L. Gibbons, Ozark, Secretary.

The Pope-Yell County Medical Society was addressed September 10th by Vernon Toombs, Little Rock, on "Pediatric Emergencies."

W. O. Young, Secretary.

The Fifth District Medical Society meeting will be held at the Camden Hotel in Camden October 8th. This will be a dinner meeting and the speakers are Mr. Mac F. Cahal, Executive Secretary, American Academy of General Practice; Congressman Oren Harris and Senator John F. McClellan.

William Alan Richardson, Editor, Medical Economics, Rutherford, New Jersey, will address the Pulaski County Medical Society at the University of Arkansas School of Medicine on Monday evening, October 5th.

The Ouachita County Medical Society met in regular monthly dinner session at the Ouachita County Hospital September 3, 1953, with the following program:

"Radiation Therapy" (illustrated), I. Meschan, and "Credit Bureaus," Mr. Gaston Fulmer, Secretary, Pulaski County Medical Society, Little Rock.

The Ouachita County Medical Society through its Public Relations Committee is sponsoring two weekly health broadcasts on the two Camden radio stations and is also running a weekly health column in the Camden News.

R. B. Robins, M.D., Secretary.

OKLAHOMA CITY CLINICAL SOCIETY

The Oklahoma City Clinical Society which had its beginning in 1930, will open its twenty-third annual four-day conference October 26th, 1953.

A large attendance is expected at this ever increasingly popular meeting held in centrally located and easily accessible Oklahoma City. It is interesting to note that at the present time Oklahoma City is rated third in the nation as a convention city.

As in former years, an outstanding program of postgraduate teaching has been arranged. This includes lectures and discussions by 16 distinguished guest speakers selected from various medical and teaching centers throughout the nation, as well as many Oklahoma City teachers and physicians. Doctor Edward J. McCormick, President of the American Medical Association, will give an address at the first banquet meeting October 26th. In addition to the general assemblies and panel discussions there will be daily luncheon round table question and answer sessions, and a clinical pathologic conference. The entertainment will include dinner meetings, the annual Clinic Dinner Dance and the Stag Smoker.

A cordial invitation is extended to all physicians who are members of their County Societies to attend this interesting meeting.

PERSONALS AND NEWS ITEMS

Contributions to the American Medical Foundation during August were from R. H. Chappell, Texarkana, and J. H. McCurry, Cash.

The Council has appointed the following as medical representatives from their respective councilor districts to serve on the Arkansas State Arbitration Commission: R. C. Shanlever (1957), Jonesboro; T. L. Adair (1955), Bald Knob; J. Max Roy (1955), Forrest City; George B. Talbot (1956), Pine Bluff; A. D. Cathey (1958), El Dorado; N. B. Daniel (1954), Texarkana; Thomas M. Durham (1957); Hot Springs National Park; Joseph A. Buchman (1956), Little Rock; D. L. Owens (1954), Harrison, and John D. Olson (1958), Fort Smith.

R. B. Robins, Camden, addressed the Mississippi Academy of General Practice at Jackson, September 16th.

The following have been elected by their respective American Legion posts: Leo Aday, medical adviser, Little Rock; Allan A. Gilbert, medical adviser, Fayetteville; H. E. Ruff, chaplain, Magnolia, and I. J. Spitzberg, first vice-commander, Little Rock.

I. J. Spitzberg has been elected grand cheminot of the Little Rock voiture, 40 and 8.

Phil Hefner has moved from Hickory Ridge to Mena.

Married—On August 8th, John R. Power, Springdale, and Miss Ernestine Tedford, Lonoke.

J. L. Rushing, Chidester, will receive the Golden "T" of the University of Tennessee School of Medicine on September 28th.

Dr. and Mrs. Arnold Henry, Russellville, spent a recent vacation in Illinois.

S. W. Hawkins, Fort Smith, took special work at the Lahey Clinic during August.

Dr. and Mrs. G. R. Siegel, Clarksville, spent a recent vacation in California.

L. K. Hundley, Pine Bluff, addressed the opening convocation of the University of Arkansas School of Medicine September 21st on "The Long Road."

William K. Hill has located at Newport.

F. N. Thickston has located at Booneville.

Dr. and Mrs. E. A. Mendelsohn, Fort Smith, spent an August vacation in the Ozarks.

Dr. and Mrs. Homer K. Wright, Hot Springs National Park, spent a recent vacation on a motor trip to western points.

W. L. Newton has been elected surgeon of the Smackover post, American Legion.

Frank G. Kumpuris, Little Rock, announces the association of Bill D. Stewart in the practice of general, thoracic and cardiovascular surgery at 238 Waldon Building.

Fred D. Switzer, formerly of DeQueen, is now with the McAlester Clinic, at McAlester, Oklahoma.

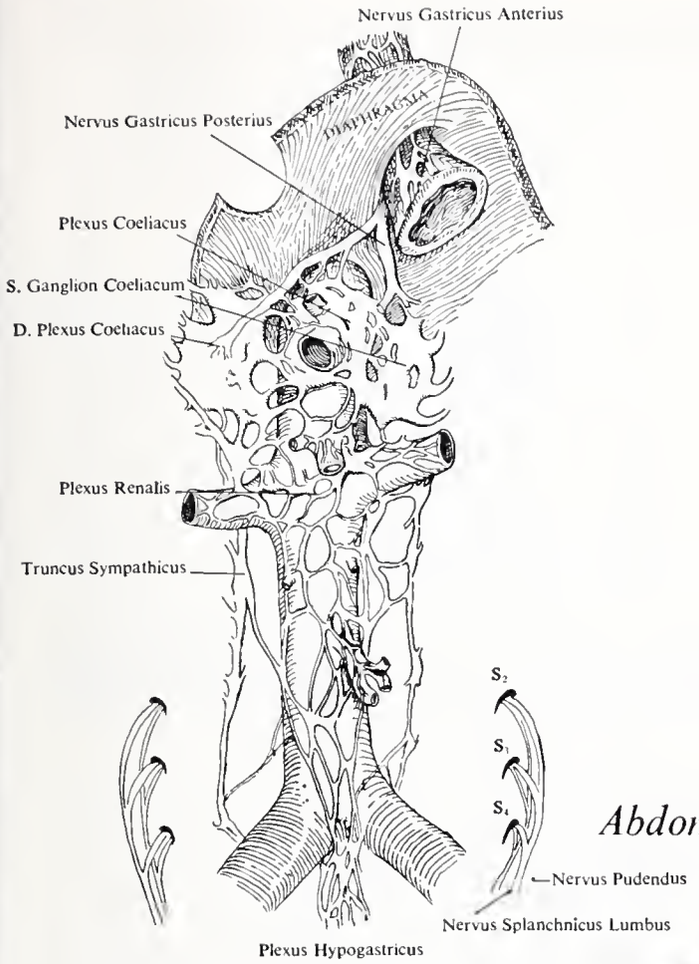
Newly located in Arkansas are: L. E. Edwards, Crossett; Bruce Ellis, Stephens; W. A. Bullock, Ola, and C. G. Swingle, Marked Tree.

A. R. Clowney has been elected medical advisor of the El Dorado post, American Legion.

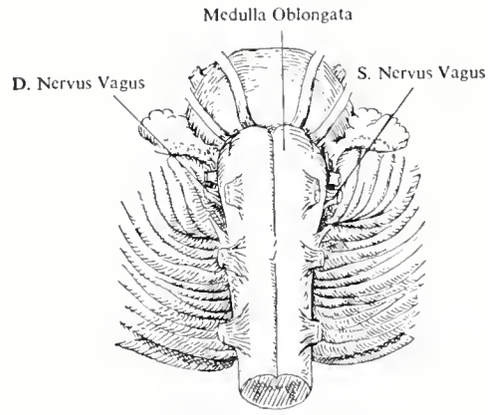
Dr. and Mrs. A. F. Hoge, Fort Smith, spent an August vacation in Minnesota.

Chas. S. Lane, Fort Smith, has returned to practice from service with the naval medical corps.

J. H. Burge, Lake Village, has been appointed a member of the Arkansas Fish and Game Commission.



Central origin of the vagus nerves (parasympathetic)



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1. Zupko, A. G.: Pharmacology and the General Practitioner, GP 7:55 (March) 1953.

2. McHardy, G. G., and Others: Clinical Evaluation of Methantheline (Banthīne) Bromide in Gastroenterology, J.A.M.A. *147*:1620 (Dec. 22) 1951.

SEARLE Research in the Service of Medicine

Harley C. Darnall, Fort Smith, addressed the Rogers Memorial Hospital staff October 12th on "Surgical Collapse Therapy in Tuberculosis."

James Grable has located at Arkadelphia.

William M. Owen, formerly of Ava, Missouri, has located at Blytheville.

Thomas E. Townsend is now associated with J. Clyde Hart, Jr., at Pine Bluff.

R. F. Hyatt has been elected president of the Monticello Little League.

W. H. Mock, Prairie Grove, received the Golden "T" of the University of Tennessee College of Medicine September 28th.

Barton A. Rhinehart has opened an office for the practice of roentgenology and electrocardiography at 1401 Donaghey Building, Little Rock.

W. E. Morris has resigned as associate dean of the University of Arkansas School of Medicine and has returned to private practice with offices in the Baptist Medical Arts Building, Little Rock.

Charles Taylor recently addressed the Batesville Kiwanis Club.

J. P. Hiller, Pollard, was the subject of a congratulatory article in the Piggott Banner September 4th.

Roy Bird recently addressed the Magnolia Lions Club on the Arkansas Rural Health Conference.

W. E. Knight has been released from military service and has returned to practice with the Holt-Krock Clinic, Fort Smith.

WOMAN'S AUXILIARY NEWS

BOARD MEETING AND SCHOOL OF INSTRUCTION

AUGUST 26, 1953

A School of Instruction and meeting of the Board of Directors of the Woman's Auxiliary to the Arkansas Medical Society, attended by 24 members, was held August 26th in the Hotel Marion at Little Rock. Mrs. A. A. Little, Texarkana, presided.

Chairmen of standing committees outlined plans for the year and explained to the county presidents how those plans should be carried out on a county level. Mrs. Don Dykstra reported that as soon as the new letters of instruction are received from all committee chairmen, the material will be mimeographed for the handbooks and sent to each board member.

Dr. Charles Henry spoke to the group on "Why a Rural Health Conference." He also paid tribute to the "Survey of Health Facilities Available in Arkansas" which is being compiled by Mrs. Howard Stern, Health Education Chairman, stating it is the finest job conceived in many years and may well set a pattern for such surveys throughout the United States.

Mrs. T. Duel Brown, Recording Secretary.

BOOK REVIEW

Surgery of the Pancreas: By Richard B. Cattell, M.D., Surgeon, The Lahey Clinic, New England Baptist Hospital, New England Deaconess Hospital; and Kenneth W. Warren, M.D., Surgeon, The Lahey Clinic, New England Baptist Hospital, New England Deaconess Hospital. 374 pages with 100 figures. Philadelphia and London: W. B. Saunders Company, 1953. Price $10.00.

The authors of this excellent monograph have been particularly interested in the subject over the years. This is evidenced by the fact that they have had experience with 102 pancreaticoduodenal resections for both benign and malignant disease. The book consists of 357 pages amply illustrated with good X-ray plate reproductions and photographs of the surgical specimens. First is a comprehensive review of the anatomy and physiology of the pancreas with a chapter on congenital malformations. Chapters on acute pancreatitis, chronic relapsing pancreatitis, pancreatic cysts, pancreatic injuries, islet cell adenomas and hyperinsulinism, carcinoma of the pancreas and total pancreatectomy, follow in that order. Each topic discussed is followed by pertinent case reports, along with the total experience of the clinic on the particular subject. The method of management in each instance is clear. The operation of pancreaticoduodenectomy is discussed at length and illustrated with excellent diagrams. A rather large bibliography follows each chapter.

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And Published Under Direction of the Council

W. R. BROOKSHER, M. D., Editor
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• SPECIAL FEATURES

Cancer—The New Look—A Review 95

The Long Road 96

Otolaryngology Today: Its Limitations and Opportunities 98

• FEATURES

Editorial 102

Sparks from the Secretary 104

Tuberculosis Abstracts 105

Pioneer Doctors in Mississippi County 106

Pioneer Doctors in Ashley County 107

Early Doctors in Fort Smith 108

Obituary 108

Personals and News Items 109

Proceedings of Societies 110

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Vol. L NOVEMBER, 1953 No. 6

CANCER—THE NEW LOOK—A REVIEW

ALFRED KAHN, JR.
Little Rock

Perhaps the most thought provoking article written recently on cancer is that by J. E. Dunphy in the New England Journal of Medicine of July 2, 1953. Dunphy documents the evidence against some of our shibboleths about cancer. Here are his challenges:

It is not established that cancer is an autonomous growth; for example, distant metastases often regress after removal of the primary lesion, and some cancers depend on the host's metabolism, as prostate cancer.

The rate of growth for each tumor is not constant, although it is conceded that there is a correlation of life expectancy in cancers of the same location in different individuals. A cancer may grow slowly for months and then suddenly wildly grow and spread.

Early detection of cancer is valuable and, theoretically, cancer should be removed while it is a single tiny nest of cells. However, it should now be pointed out that cancer may arise simultaneously from multicentric areas. The extension of these ideas is that because a cancer is large and known to be present for a long time, one should not feel that it must have metastasized and surgery is useless. Nor should one feel that an early attack on cancer insures a success.

The histologic appearance of a cancer does tend to correlate with clinical behavior of the neoplasm, but there are so many exceptions that treatment should not be withheld solely on the basis of the microscopic appearance. Histology is only a probable guide to a tumor's potentialities.

Dunphy suggests that the most urgent current need in cancer surgery is a rapid method of assaying the growth characteristics of each tumor before surgery. This would define the limits of how much surgery is justified in any given case and would prevent super-radical surgery where the cause is hopeless. The patient would be saved a crippling procedure when there was no possibility of preventing the cancerous tissue's spread. Because of this and other factors, it is felt that there is no evidence to justify any general or routine extension of the established cancer operations. A plea is made for super-radical surgery only in cases of slowly growing cancer, where it is obviously the proper thing to do in selected instances.

The bizarre behavior of metastases has led to surgical attacks on new metastases provided they are solitary and an interval of a year has elapsed since primary surgery. Just because the histology of the primary lesion appears unfavorable, these operations should not be withheld. The wisdom of the "second look" several months after all cancer surgery, where metastatic nodes exist, is not established.

The long range program of cancer cure should include the removal of readily accessible painful nodules even though other metastases are present, teamwork with radiologists, radio-isotopes, etc. However, great caution is urged concerning the rational use of palliative surgery. Particular stress is given the avoidance of the "anticipatory colostomy" and the colostomy performed for the pseudo-obstruction of carcinomatosis.

Lastly, it is suggested that patients with incurable cancer be told the nature of their disease.

Dunphy's article should be "must reading" of every practitioner. No review can adequately reflect the wisdom and obvious experience that this noted surgeon has expressed in this article.

THE LONG ROAD

L. K. HUNDLEY, M.D.
Pine Bluff

In the past 80 years two organizations have traveled the long road of medical progress side by side. One is the brain-child of the other, furnishing the sinews of service which have made the parent outstanding. I speak of the University of Arkansas School of Medicine and the Arkansas Medical Society.

Organized medicine in Arkansas had its inception in Sebastian County in 1845, with the formation of the first county medical society under the direction of Dr. J. A. Dibrell, Sr. In 1866 was organized the College of Physicians and Surgeons, later to become the Little Rock and Pulaski County Medical Society. On November 21st, 1870, following a call to the profession, delegates from the county medical societies met in Little Rock to form the "Medical Association of the State of Arkansas." Dr. P. O. Hooper, then president of the Pulaski County Society, became the first president of the state organization.

This group was soon beset with many troubles, most important of which was the battle over "Drummer Doctors" in Garland County. My wife's grandmother, a native of Garland County, told me the story of a grocer who lived near her parents. For years he accumulated coupons which came with Arbuckle Coffee and finally saved enough to receive as a premium, a "Doctor Book." After reading this volume, he took down his grocery sign, put up his shingle as an M.D., hired a bunch of drummer boys to meet the trains, and became a renowned specialist within a few years. Feeling became so high that the doctors' dressing rooms in the hospitals had a special table by the door on which physicians were required to deposit their firearms. Dissension of this sort soon sounded the death knell of our first state medical organization, but it is interesting to note that at the State Meeting in 1873 the first mention of the need for a medical school was made. In 1875 the last meeting of the "Medical Association of the State of Arkansas," was held and the new State Medical Society of Arkansas was formed, excluding the leaders of the Garland County fight. The charter obtained for this organization on October 11, 1875, was in effect until new articles of incorporation were drawn up October 11, 1929.

With the enthusiastic support of the state and local societies a medical school was established in 1879 on West Second Street, in Little Rock. The following spring one student was graduated, Dr. Thomas Pinson. His diploma now hangs in the library, and the names of the men who signed it are worthy of your attention.

Dr. Hooper, whom I have mentioned as the first president of the state society, served for seven years as dean. He later served as president of the A. M. A., the only Arkansan ever so honored. Among the illustrious physicians associated with the school and society in these early days were: Dr. Edwin Bentley, Dr. McAlmont, and Dr. James A. Dibrell, Jr.

In 1880 occurred one of the most dramatic milestones in the road of Arkansas medical history. An epidemic of yellow fever descended upon the state, necessitating the setting up of a voluntary State Health Organization by the society. In this epidemic Dr. Edward T. Easley gave his life, and became one of the early heroes of Arkansas medicine. The following year the Governor gave his official blessing to this group, and the next year the Legislature passed laws creating the State Board of Health. Names on the first State Board were several members of the faculty of the School of Medicine.

The society was also instrumental in securing the establishment of the State Hospital for the Insane, with Dr. Hooper as superintendent (1886) and a Little Rock City Hospital in 1895 following a bequest of $10,000 by Col. Logan H. Roots.

A concern for legislation pertaining to health needs and medical affairs has long been paramount in the society. In the light of the past session of the General Assembly you will be interested to know that in 1887 the society attempted to get a bill through the Legislature to establish a General Hospital in Little Rock. When the bill failed to pass, this comment was made by the historian, "I regret to say that there was opposition to this from certain members of the medical profession who should have been its friends." So you see that recent legislative battles are not the only ones in Arkansas' medical history.

In 1900 Dr. Welch, then chairman of the Committee on Legislation, presented a resolution to the state society to abolish his committee, stating that the Legislature had refused on every possible occasion to listen to the advice of the Committee on Medical Legislation, that it was believed by everyone who had become familiar with the legislative situation that nothing could be

* Convocation address, University of Arkansas Medical School, September 21, 1953.

achieved by further contacting this body. Declared Dr. Welch, "In the efforts to secure a good medical law you might as well bay the moon." This motion lost after impassioned discussion.

In the next three years they either had an election or got a new committee head, because in 1903 was passed the Medical Practice Act under which we still operate.

In 1906 a new medical college was established, however in 1910 upon the recommendation of Dr. Flexner of the Carnegie Foundation, the Arkansas Medical Society approved the combining of the two schools and appointed a committee to supervise and effect the consolidation. This committee served until the General Assembly passed enabling legislation in 1911, and made the medical school a part of the University of Arkansas in fact as well as in name. The enabling act contains this interesting statement — "The State of Arkansas hereby pledges its faith and credit to forever maintain in Arkansas a first class medical school." I will say that in the years since, although there have been some narrow scrapes, the Legislature has kept its word.

As we come down the road to our comparatively recent history we note that in 1929 the society was instrumental in passing the Basic Science Law, and Honorable Peter Diesch of Helena first appeared as our legislative counsel. In 1933 the Doctor, Nurses and Hospital Lien Law was passed. In 1947 came the first Act to establish a new University Hospital out of which in 1949 grew the State Medical Center Act. I wish it were possible to enumerate all of the individuals who conceived and worked over these many projects. You will find their names on the rolls of the medical societies. These things have been accomplished by practicing physicians working with no thought of personal gain or glory, but with the firm conviction that Arkansas should have the best prepared physicians it is possible to obtain with the money and facilities available. The society has always been concerned with the securing of sufficient funds to finance operation of the school. It has always felt that a topnotch faculty, with adequate salaries and funds for research were essential to the development of the type of school Arkansas desires and needs.

It seems to me evident that the past, present and future of the Arkansas Medical Society and the University of Arkansas Medical School are most closely interwoven. It also seems evident that the Arkansas Medical Society has a duty and a right to be concerned with the policies and curriculum of the medical school. By our oath as we interpret it today we have a definite responsibility to the people of Arkansas that the **quality** of medical care shall be the best, and the **quantity** adequate.

Remember if you will that the public is the consumer of the services which we here produce. Upon the quality of those services depends the continuing demand and support from that consumer. When we overlook this fact by producing a type of service that the patient cannot pay for, he is willing to accept an inferior service but will blame us for having to do so. Many doctors believe that the era of specialization has trained out or neglected to develop in the young physician an understanding of the economic and social consequences of illness to the patient and his family. We believe that the faculty of your school is cognizant of these facts and that long range planning to overcome these deficiencies is in the making. We believe that this school has produced and will continue to produce physicians who are not only qualified to give the best and most modern scientific care but who also will have an awareness of their responsibility to their community as well as to their fellow physicians. We who are in the private practice of medicine feel that it is this type of physician who can bring back to medicine its place of high regard which for so many years it enjoyed.

Each of you on this day is starting toward another milestone on the road of medicine. From my own experience I feel that every bit of help along that way is appreciated. So in closing I want to share with you a bit of philosophy from a prominent and revered teacher of medicine, Dr. Joseph Markee of Duke University. I hope that it will help you as it has me. After a trip on the Continent last year Dr. Markee sent me a lovely salon print of a tree lined road in the south of France. Accompanying his picture were these comments: "This is just a road and trees. To many there may be nothing more in this picture; to me it says many things.

First—The world is full of beauty for those who open their hearts and see.

Second—Perspective is important. Cover up just the tree on your left. No, you don't like that point of view either. Can you mentally see how little there would be in that picture if it were shot just two feet to your right? For once I had the right perspective. Oh, if I could only find equally good perspective in all my problems in life. Surely I should always be willing to change my viewpoint by a paltry two feet to the left.

Third—The greys are important. The picture has much that is pure white and pure black. But for those who will look there are hundreds of

shades of grey. Life has pure good and pure evil but he who is to understand life must be able to recognize the shades of grey. The grey makes up most of the body of life."

The road of medical history in Arkansas is replete with blacks and whites and greys. You are the men who will determine the correct balance in the long road ahead.

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OTOLARYNGOLOGY TODAY: ITS LIMITATIONS AND OPPORTUNITIES*

J. W. McLAURIN, M.D.
New Orleans

Let me begin these remarks by saying that in addressing this gathering I feel the pride and pleasure which any alumnus of this university would feel when he is asked to speak for his Alma Mater. We alumni of the University of Arkansas School of Medicine are what we are and what we shall become because of what this school has made of us and done for us. Its reputation is in our hands. The more wisely and faithfully we practice the healing art, the more honor shall we do to the school that sent us out.

The Changing Face of Otolaryngology

Let me say next that in spite of what you may have read to the contrary in some of the recent medical literature, I do not address you as the representative of a dying, or even of a shrinking, specialty. There is every reason why otolaryngology should have developed as a special branch of medicine, and every reason why it should continue as one. A quarter or more of all diseases encountered in general practice take their origin in the ear, nose, throat and upper respiratory tract. Through these orifices there enter the body a variety of infections responsible for local and systemic diseases. The structures of the head and neck are the site of a considerable proportion of all malignant disease, while the otolaryngologist who is trained in endoscopy plays an important role in the diagnosis of malignancy lower in the alimentary and respiratory tracts.

No group of physicians has a right to stake out claims for special areas of the human body, nor do I mean, as a teacher, to be guilty of special pleading when I say that the amount of time allotted to otolaryngology in most medical schools today does not correspond to its importance. In only a few schools is the allotment of time really sufficient. In a few schools it is shockingly inadequate. It does not seem too much to ask for enough space in the curriculum to instruct the student in the normal anatomy and physiology of the nose, throat and ear; to teach him methods of physical examination and the use of the simpler instruments of diagnosis; and to provide him with enough didactic and clinical instruction to make him realize that an otolaryngologic examination should be a part of all physical examinations and to recognize abnormalities when he encounters them. These seem to be entirely reasonable objectives, and I hope that it will not be too long before we attain them.

While I cannot agree that otolaryngology is a dying, or a shrinking, specialty, I am more than willing to grant that it is a changing specialty. We have, fortunately, ceased to regard each patient who consults us only as a possible candidate for surgery. I am not sure, however, that we have not gone too far in the direction of so-called conservatism. Some of us have apparently forgotten that surgery is still the optimum therapy for many diseases of the nose, throat and ear. Otolaryngology is one of the areas of medicine which has benefited most by the introduction of chemotherapeutic and antibiotic agents. They have reduced the incidence of, and therefore the necessity for surgical intervention in, such conditions as mastoiditis, otogenic and rhinogenic intracranial complications, and infections of the neck. On the other hand, as most of us now acknowledge, our enthusiasm for these new methods has sometimes outrun our discretion, and we have tended to forget first principles.

Limitations of time will permit me to discuss only a few of the conditions which fall within the province of the otolaryngologist and in which new concepts of diagnosis and therapy have altered the manifestations of the disease or the end-results. I shall not have time to mention such procedures as maxillofacial surgery; rhinoplastic

* Presented at the first annual Alumni Association Clinical Assembly, University of Arkansas School of Medicine, June 15, 1953, Little Rock, Arkansas.

operations for functional as well as cosmetic purposes; otoplastic operations done for the same reasons; the surgical management of affections of the facial nerve; and the surgical management of tumors of the neck. Nor shall I have time to discuss two otolaryngologic problems which continue to mock us, the post-nasal drip and the common cold.

Tonsillectomy

No otolaryngologist has any reason for pride when he thinks back on the days, not too long ago, when the chief reason for tonsillectomy was —or so it seemed—the fact that it had not yet been performed on the patient then before the physician. Now, many observers contend, tonsillectomy is more often performed by physicians who do not specialize in otolaryngology than it is by the specialists in this field. That may or may not be true. It is true that the otolaryngologist has come to realize that the adenoids and tonsils form a natural lymphatic barrier against invasive infection and participate in the auto-immunization of the young child. Naturally, if he holds that concept, he will remove these structures only on strict indications.

The present tendency, I would say, is not to perform tonsillectomy readily enough. When the adenoids and tonsils have lost their protective properties and are themselves overwhelmed by infection, they have become useless and dangerous structures, and they should be removed. There are a number of absolute indications for the operation, including frequent acute attacks of tonsillitis with systemic symptoms and signs; recurrent tonsillar abscesses; recurrent or persistent cervical lymphadenopathy; recurrent attacks of otitis media with blockage of the Eustachian tubes; conductive hearing loss caused by hypertrophy of the adenoids; and gross enlargement of the tonsils and adenoids, with resultant mechanical obstruction, respiratory difficulties, and poor occlusion.

Two other considerations should be mentioned in this connection. The first is when tonsillectomy should be performed, or, more correctly, when it should not be performed. We still have no precise knowledge of the relationship, if indeed there is one, between tonsillectomy and subsequent poliomyelitis. The samples are too small, and the cause and effect sequences are usually too remote, to justify the sweeping conclusions which have been drawn from available data. Personally, I strongly doubt the connection, though, paradoxically, I do not recommend tonsillectomy in the poliomyelitis season. My reasoning is more logical than my statement would seem to suggest: Poliomyelitis is a disease which is epidemic in warm weather. Exposure to it is over almost before one realizes that it has occurred. The tonsillectomized child may have been exposed before the operation, or may be exposed to this disease, in the ordinary course of events, immediately after it. Parents suffer from a frantic, and justifiable, dread of it. Tonsillectomy is practically always an operation of election. These things being so, there seems small point to submitting a child or an adult to a possible risk, however remote, which could very easily be avoided, with avoidance, at the same time, of the overwhelming anxiety which attends the risk.

Finally, in connection with tonsillectomy, I think we should be less ready than some of us are to ascribe the reappearance of adenoid tissue after operation to an allergic cause. In some instances that really is the explanation. More often, the exolanation is the less flattering one that the original operation was not properly performed. When the adenoids are removed under full visualization, recurrence is the exception, not the rule.

If the recurrent adenoid tissue is of any considerable size, secondary excision is the wisest plan. If it is limited to small remnants in the fossa of Rosenmuller, the patient should be referred to a competent radiotherapist. In the first flush of enthusiasm for the radium treatment of hyperplastic adenoid tissue, I too purchased a radium applicator, but it is many months since I have used it. This is a dangerous and inaccurate way of applying radium, and it is significant that some of the authorities who advocate it most strongly recommend that if recurrent adenoid masses are of any considerable size, they should be removed surgically before irradiation is employed.

The Management of Sinus Disease

Operations on the sinuses were once performed almost as casually as tonsillectomy, but that is no longer true. For one thing, we now realize the possible role of allergy in the etiology of disease of the sinuses. For another, many of these infections can now be aborted or controlled by the use of the antibiotic drugs now available, with due regard for the extent and stage of the disease and of its etiologic background. Again, however, we must not let the pendulum swing too far to the other extreme. The chronic infected, nonfunctioning lining of a sinus cannot be restored to normal by medical measures. Only surgical treatment can correct the situation. Even more important, pus in the sinuses must still be eliminated

by the established surgical principle of providing a route of egress for it.

Fallacies in the Current Management of Otitis Media

In otitis media we have, unfortunately, lost all sense of surgical values. This has always been a trying disease to treat. It has become considerably more trying since the antibiotics have come into existence. The otolaryngologist formerly dealt with only two varieties, the untreated or virgin disease and the neglected disease. Now he must deal with a third disease, which is extremely difficult to manage, mistreated otitiomedia with its therapeutic complications.

The fact of the matter is that middle ear disease is a self-limited condition. In the absence of suppuration, 80 per cent of all cases will go on to recovery under the simplest measures or no treatment at all. Many of the results reported as brilliant evidences of the value of antibiotic therapy concern patients who would have recovered if they had merely been let alone. In these cases the antibiotics usually do no harm. Once suppuration has occurred, however, the whole situation changes. The antibiotics are not only not indicated, they are actually contraindicated. The optimum conditions for their employment cannot be met. The pathologic process is inaccessible to therapeutic concentrations of these drugs because it is, in effect, a localized abscess enclosed in a bony cage. The physician who treats suppurative otitis media by antibiotic therapy has lost sight of these considerations and of the fundamental surgical principle that the elimination of pus must be accomplished by surgical means.

One of the greatest dangers of antibiotic therapy in otitis media is another paradox, the dramatic improvement which frequently follows its use. It is not until later that recurrences become evident, or the disease assumes a chronic form, often associated with repeated perforations of the tympanum, or that more serious consequences ensue, such as mastoiditis with almost complete bony breakdown, meningitis, epidural or perisinal disease, lateral sinus thrombosis, or cerebral abscess. I see two to four such cases in my own practice every year and the number now on record in the literature has grown to a sizable total.

My own keen interest in deafness in children is probably responsible for my feeling that one of the most disturbing consequences of mistreatment of middle ear disease is its effect on hearing. Repeated attacks of otitis media are probably the commonest cause of conduction deafness in children. When the primary infection is only incompletely resolved, as it frequently is when it is inadequately treated with even the most potent of the new agents, adhesions form in the ossicular chain or between the tympanic membrane and the promontory, and the regional mucosa becomes thickened and fibrotic. This chain of events is particularly likely to be overlooked when it is unilateral, and is particularly serious when the patient is a child. An adult will recognize that tinnitus and a sense of fulness in the ear are unnatural and will seek medical attention promptly, just as he is likely to when he realizes that his hearing is becoming impaired. A child is not unduly troubled by these symptoms, and even the most observant adults responsible for his care may overlook unilateral deafness until the impairment has become irreversible.

What all of this amounts to is that the majority of cases of otitis media can perfectly well be treated by simple measures without antibiotic drugs, and that myringotomy remains the useful and essential operation it has always been. Antibiotic therapy should be used in the postoperative course only when there are definite indications for it, and it should never be employed without matching the organism against the agent in the laboratory.

It has become almost a cliche to say that it is hard today to find enough cases of mastoiditis to teach residents the technique of mastoidectomy. That this is entirely due to the use of antibiotics in otitis media I take leave to doubt. There are simpler explanations: The greater accessibility of hospitals and physicians; the decrease in the incidence of otitis media, because of the use of antibiotics in pneumonia and other severe upper respiratory infections; and the unusually low virulence of the variety of otitis media observed in recent years. When mastoid disease is present, there is, of course, no question as to the importance of prompt surgery, the extent of which must depend upon the extent of the disease.

The Present Outlook in Deafness

Over the past two decades the whole field of deafness has taken on a new and more encouraging look. One reason is the development of the fenestration operation for otosclerotic deafness. It is unfortunate that Lempert's operation, which was introduced in 1938, was greeted with such exaggerated claims—they were not made by the originator—in both the medical and the lay press. The regrettable impression was created that the operation has a far wider application than it has, and is a far simpler procedure than it is. Actually, it is applicable only to a certain proportion of persons with otosclerosis, and otosclerosis is re-

sponsible for not more than 10 per cent of all deafness. Moreover, candidates for the operation must be selected by very strict criteria: All other causes of conductive deafness must be excluded. Nerve degeneration must be excluded. The operation must not be performed on patients advanced in years, especially those who are poor surgical risks from other standpoints. It is not suitable for emotionally unstable patients. Successes in borderline cases are not numerous and there is a certain proportion of failures even in ideal cases. The criterion of success is audiometric but unless the improvement is such that the patient can comprehend ordinary conversation and resume his social and economic contacts, he would have been better off with a hearing aid.

A second reason for the changed outlook on deafness is that for the first time otologists are realistically facing facts and are admitting, and acting upon the admission, that aural rehabilitation, and not medical or surgical therapy, is the answer for most deafened persons. We are now trying to adapt to the civilian population the excellent program of aural rehabilitation employed by both Army and Navy during World War II. This involves precise diagnosis; the proper selection and fitting of a hearing aid, with systematic training in its use; the conservation of such hearing as remains; training in lip reading; psychologic and psychiatric consultation when it is indicated (and not otherwise); and the use of various other methods and techniques which will restore the deafened person to social adequacy. The program recently established in the Department of Otolaryngology at the Tulane University School of Medicine, which is directed toward these ends, is only one of an increasing number of similar programs throughout the country.

Special attention in these programs is always paid to the inarticulate child. The wait-and-see plan has no place in them. The time to discover that a child is hard of hearing, or inarticulate for other reasons, is in the first years of life, and this is the time to undertake his adaptation and rehabilitation.

Therapeutic Bronchoscopy and Tracheotomy

Two therapeutic procedures within the field of otolaryngology have become of increasing importance in recent years. One is bronchoscopy. This is an essential preoperative step before any resectional surgery of the chest. Spillage of secretions into the contralateral lung after lobectomy can initiate an infection in intact tissue. Retention of secretions in a compressed lung after thoracoplasty can easily prove fatal. Bronchoscopy is also frequently indicated in preparation for other types of surgery, and it should be used without delay after any operation if the cough is ineffectual or if there is any suspicion that secretions are being retained in the tracheobronchial tree. Atelectasis is the fruit of disregard of these warnings. Death may be the fruit of failing to employ bronchoscopy immediately when once atelectasis has developed.

Tracheotomy is another useful adjunct measure in various diseases. In 1859 Marshall Hall described it in the Lancet as an "heroic remedy, appropriate only to Herculean forms of disease." That held true within the memory of most of us here. In recent years, however, this operation has been used on far wider indications, to relieve the patient, so to speak, of the strain of respiration. It has saved many lives in tetanus, in poliomyelitis, in neurosurgical states in which the respiratory centers are affected, after thyroid surgery, and in any other condition in which the status of the tracheobronchial tree might indicate repeated bronchoscopy. Collins, of the Tulane University School of Medicine, has begun to use it in eclampsia, with brilliant results.

The Role of the Otolaryngologist in Malignant Disease

In conclusion—and I regret that I did not leave more time for it—let me say a few words about malignant disease. The otolaryngologist has a heavy personal responsibility in the management of cancer of such structures as the tongue, palate, mouth, tonsils, pharynx and larynx. They are all readily accessible. Disease in them should be easy to diagnose and to treat. Granting that patients delay seeking medical attention, the profession, too, is guilty. Many instances of malignant disease of these structures would be detected in its early, curable stages if every new patient who consulted the otolaryngologist were examined, regardless of his complaint, by a routine which included the ear, nose, throat, nasopharynx, larynx and sinuses. Many more cases would be cured if such symptoms as hoarseness, cough and wheezing were traced to their origin before they were treated.

In two other forms of malignant disease the otolaryngologist who is trained in endoscopy simply holds up the hands of the surgeon, but that does not in any way lessen his responsibility. Carcinoma of the esophagus is a reasonably easy disease to diagnose if the patient is examined by X-ray and esophagoscopy on the first indication of disordered function. Because the patient delays in seeking medical consultation and the phy-

sician delays in using the weapons at hand, it still carries a mortality of almost 100 per cent, although a practical excisional operation is now available for it.

Carcinoma of the lung is frequently a difficult disease to diagnose, and many tumors, unfortunately, occur in the upper lobes of the lung, where bronchoscopic biopsy is impossible. Nonetheless, bronchoscopy permits the collection of secretions for cytologic examination, and it often reveals other evidences of abnormality, such as stenosis, hyperemia, deformity, rigidity, infiltration, and localized atelectasis. All of these abnormalities deserve far more weight in the evaluation of the patient than they are sometimes given. Proper liaison among the internist, the roentgenologist, the surgeon and the otolaryngologist trained in endoscopy will permit that sort of evaluation. The ideal arrangement—still more honored in the breach than in the observance—is for the surgeon to be present when bronchoscopy is performed. The solution of the problem of carcinoma of the lung would seem to lie in (1) a more careful interpretation of roentgenograms, especially when they are taken early; (2) a more liberal interpretation of bronchoscopic findings, even if a positive pathologic report is not obtained; and (3) a far prompter resort to exploration of the chest on suspicion alone if malignant disease cannot positively be excluded.

Summary

In these few minutes I have tried to outline to you some of the recent advances in otolaryngology which are of general interest, some of the limitations of medical and surgical therapy, and —since we are human—some of the past and present errors of which otolaryngologists have been, and are, guilty. I hope that you will agree with me that our field of practice has, if anything, expanded. It is certainly far wider than it was when I entered this specialty. That is true of the whole medical horizon, and my good wishes to the members of the class of 1953 of the University of Arkansas School of Medicine, are not unmixed with a faint envy of the accomplishments in medicine, in surgery, and, in particular, in otolaryngology which I am sure lie ahead of them.

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★ Editorial ★

A RADIOLOGIST: "WHO IS GOING TO REGULATE WHOM?"

HAROLD C. OCHSNER, M.D.

Frankly, it seems to us, that if the doctors in this country at the local level don't arouse themselves they're going to be trampled on in the rush—in the rush of medical administrators from Chicago, for instance, trying to tell them how to practice medicine.

At the outset let us make perfectly clear the firm belief that hospitals should be strictly regulated and controlled. No one in his right mind wants to go back to the pre-1913 days when patients went to hospitals to die, not to get well.

But the $64 question is: Who is going to do the regulating? Who is going to say how many hospital meetings a local doctor has to attend? Who is going to say when there must be surgical consultation in a case? Who, indeed? An individual or a commission in New York or Chicago? Can that commission or individual possibly know the situations which are peculiar to Indianapolis or any other local community?

These are questions local doctors are going to have to answer. And, in our opinion, they're going to have to answer them in a loud, concerted voice—not in isolated protests. And the answer had better be loud and crystal clear!

The discussions about hospital regulation bring to mind the recorded history of the disagreements between capital and labor in this country. Old time industry, with its sweat shop and child labor, itself brought on the need for unions. Now we have witnessed a situation where, in recent years, labor has abused some of its privileges. Same with hospital regulation—hospitals needed regulation and control and they got it. But now, it would seem, we are fast approaching the time when regulations are going to "regulate" the hospitals right off the market where common, ordinary folk can afford to go to them.

But, you say, "hospitals are a monopoly and people have to go to them." Correct! But, also remember that when hospital costs get too high the case for the government taking them over gets better and better.

It seems to us that this is the main point overlooked—increased hospital costs which stem from

increased regulation can be met in only one way. Pass the charges on to the patient.

We long have contended that if compulsory health insurance ever comes to this country (and don't think for a minute that it's behind the door for keeps!) it will come by default on the part of the medical profession. And hospitals are a part of the profession.

Think it over, doctor, it's your livelihood and profession which are at stake!

—Reprinted with permission, Indianapolis Medical Society Bulletin.

"TO ALL MY PATIENTS"

Comments from both physician and patient have been received testifying to the good-will value of the office plaque, titled as above, which has been available from the American Medical Association for some time. This will be found in the offices of many physicians and their approval has been most encouraging. The cardinal tenet of good public relations is that these are best carried on the doctor's own office. The display of this plaque is a demonstration of the physician's desire to discuss either fees or service with the patient. Details of the plaque may be found in a page advertisement in this issue of The Journal.

The seventeenth annual meeting of the New Orleans Graduate Medical Assembly will be held March 8-11, headquarters at the Municipal Auditorium.

Eighteen outstanding guest speakers will participate and their presentations will be of interest to both specialists and general practitioners. The program will include 54 informative discussions on many topics of current medical interest, in addition to clinicopathologic conferences, symposia, three dimensional surgical motion pictures, round-table luncheons and technical exhibits.

Details of the New Orleans meeting tour are available at the office of the assembly, Room 103, 1430 Tulane Avenue, New Orleans 12, Louisiana.

It seems hard to believe in these days of "high" prices, but the three oldest Eli Lilly and Company products today cost the pharmacist less than they did 76 years ago.

The three items—Quinine Sulfate, Cathartic Compound pills, and Elixir of Pepsin, Bismuth and Strychnine—are the only survivors from the first Lilly price list issued in 1877. If the pharmacist buys all three, he pays 6.7 per cent less than he did when Colonel Eli Lilly, the company's founder, was making and selling them.

The gallon price on the elixir (that's the only quantity the Colonel quoted in 1877) has increased only 4.7 per cent in the 76 years. In the same period the price of 100 Cathartic Compound pills went up 38 per cent, but the cost to the pharmacist of 100 Quinine Sulfate pulvules dropped 60.7 per cent. The total saving of 6.7 per cent doesn't give the true picture, however. Today's dollars are cheaper.

For a better comparison, take the cost equivalent of the three items in some common, unchanging commodity such as butter. In a newspaper advertisement of 1877, Julian's grocery on the Indianapolis east side, offered three pounds of butter for 90 cents. Today the median price of three pounds in Indianapolis is $2.22, an increase of 168 per cent.

Thus, a pharmacist in 1877 paid the cost equivalent of 47 pounds of butter for the three Lilly medicines. Now he pays the cost equivalent of only 17 pounds. The savings are passed on to the consumer.

The comparison with egg prices is even more spectacular. Julian's offered two dozen eggs for 30 cents in 1877. The median Indianapolis price for two dozen today is $1.38. This represents a price increase of 360 per cent. The three Lilly products in 1877 had a cost equivalent of 95 dozen eggs as compared to 19 dozen now.

The Lilly items are remarkable in having withstood the challenge of new medicines.

Quinine Sulfate is the biggest seller of the oldtimers. It is used principally in the South—prescribed by doctors to treat malaria, and used by plantation workers as a "home remedy" for chills.

The Cathartic Compound pills were familiar to doughboys of World War I. The Army used a lot of them then, and still uses fair quantities.

The elixir, once widely used as a "bitter tonic," still is regarded as a good preparation.

The International Academy of Proctology announces the establishment of a postgraduate teaching fund to provide gift subscriptions to the American Journal of Proctology to 750 of the largest Hospital Libraries in this country and abroad. Inasmuch as the American Journal of Proctology is the only official Proctologic Journal in the world, these subscriptions will provide a continuing postgraduate course for interns, residents and hospital attending staffs in all major hospitals.

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WHY? ABCO, an Expression of American Free Enterprise serving the independent dealer, the manufacturer and the public, was organized by Mr. William T. Stover and other leading dealers in medical and surgical supplies in order to effect economies in purchasing and distribution of quality products. Thus a new factor has been introduced into the industry providing for more efficient, economic distribution on a nation-wide scale.

WHEN? Now you have access through Stover and ABCO to world-wide markets—to the best and finest in medical, surgical and scientific supplies. Stover is introducing this new factor in the industry immediately to users in Arkansas. You will find the ABCO label on products meeting with specifications for top quality merchandise. Find out what savings you can effect by ordering these products through Stover.

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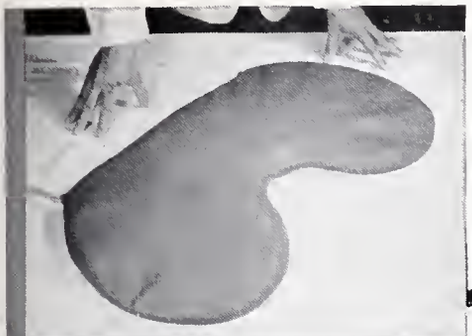

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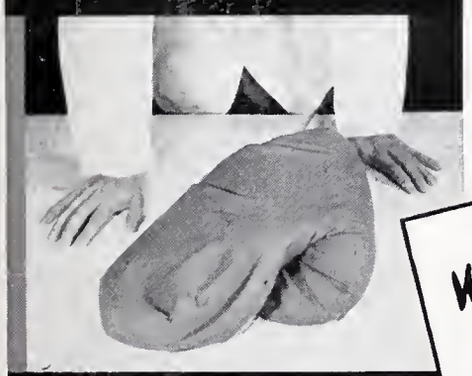

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Now you can choose from three types of pumps (a) a mobile vacuum reservoir with high speed motor-drive pump for heavy-duty use (b) a low-cost motor pump of moderate capacity or (c) a foot-operated pedal pump. The last two bring FlexiCast well within reach of the modest budget. Your local Picker representative will be glad to demonstrate "FlexiCast"—or write for information to Picker X-Ray Corp. 25 Sa. B'way, White Plains, New York.

SPARKS FROM THE SECRETARY

Did you ever hear the story on Senator McCarthy about the rabbit which came running down through the plains and stopped, all out of breath and panting terribly, in front of the corral fence on which sat an old timer. The man says, "Well, Mr. Rabbit, why are you running so hard and so out of breath?" The rabbit (pant, pant), "Senator McCarthy is investigating antelopes!" The man, "Why should that worry you, you are not an antelope, you are a rabbit." The rabbit (pant, pant), "Yes, I know that, but how can I prove it to McCarthy?"

September 18, 1953

Secretary journeyed to Hot Springs and had the pleasure of attending an Arkansas Cancer Commission meeting. That afternoon, also at the Arlington Hotel, we attended the American College of Surgeons meeting and heard two very fine papers on massive gastro-intestinal hemorrhage and a very interesting discussion of cases following. This was an excellent meeting and while the Arkansas chapter is rather young, it is certainly crawling rapidly and will soon be up on its feet and going at full speed. An enjoyable hospitality hour followed the afternoon scientific meeting. Peter Thomas rode back with me to Hot Springs in the rain (yes, there was rain!). He didn't have much to say because he had a very sore throat!

The facts of life in one syllable were best explained, in my opinion, by the daughter of one of my partners. It seems that Mother is going to have another baby and the young four year old, Camille, did not quite understand all that Mother told her about it, so she asked seven year old Nancy what it was all about. Nancy calmly explains, as overheard by Mother, "Well, you see it's all like this, Camille: Mother told you that she is growing a baby inside her stomach. Now all Mothers have a P-P hole and a T-T hole, and baby hole; when the baby gets just the right size, why the baby hole sort of explodes—and there it is!"

Just to remind you that some of the larger pharmaceutical houses are doing everything they can to help us, we would like to bring to your attention the fact that Parke-Davis has published a series of advertisements in leading national magazines about people and their doctors. They have put up these advertisements in a brochure called "Your Doctor and You," which is available to place in your waiting rooms and your reception rooms, would you so wish. All you have to do is write the advertising department of Parke Davis & Company. I believe that this is also true of Upjohn Company and the Eli Lilly Company.

The Council had a meeting in Little Rock at the Albert Pike Hotel and enjoyed the talks and the answers made to questions by Senator Fulbright. He was frank and above-board and certainly is a very intelligent man and one of which Arkansas can be very proud. The Council also conducted a considerable amount of business before the meeting with Senator Fulbright. Several reports were heard by the Council and action taken on many things. In justice to your district councilor, I wish that you would attend a council meeting sometime and find the tremendous amount of work that must go into one of these council meetings.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

TUBERCULOSIS SURVEY AND THE GENERAL PRACTITIONER

I. PHILLIPS FROHMAN, M.D.

Medical Annals of the District of Columbia, March, 1953

In the first six months of 1952, as a general practitioner in private practice, I took X-ray films of the chest of 89 patients in the 3 to 76-year-age group in my office and discovered four cases of active, advanced tuberculosis in patients aged 19 to 55 years, which necessitated immediate hospitalization; in addition, there were two cases of silicosis. All of these were taken on 14 by 17 film. The percentage of diagnoses was approximately 4.4.

In contrast to this let us examine the figures from a mass chest X-ray survey in this metropolitan community.

In April and May of 1952 mobile X-ray units operated throughout southeast Washington, D.C. In a period of six weeks, 10,830 chest pictures were taken on microfilm. These represented both males and females whose ages ranged from 15 to 45 years and who came voluntarily to the units. Upon examination of the films the tuberculosis association requested 511 to return to the clinic for repeat X-ray examinations on larger film; and of this number, 165 persons were studied more completely by means of sputum examination, sedimentation rate, and other diagnostic procedures. Twenty-seven cases of tuberculosis "in some form or another" were detected and, of these, exactly 10 cases of active tuberculosis were uncovered, in addition to the three cases of far-advanced tuberculosis necessitating hospitalization.

Let us consider the vast scope of the survey, the number of X-ray films made, and the amount of time (6 to 8 hours daily except Sunday) required to reveal 13 cases of active tuberculosis, three requiring hospitalization. This is approximately one-tenth of one per cent, a small figure for so large an investment.

It is unlikely that either of the groups X-rayed is a sample representative of the total population of this area. The group examined in the mobile units contained only the middle-age range and represented only those persons who had been reached by the publicity, who wished to come, and who were able to come. No device for random selection was employed. Likewise, the group of patients examined in my office could scarcely be considered an unbiased sample either, if for no other reason than that they were all sick people. Nevertheless, the disparity between the percentages of active tuberculosis in the two groups is sufficient cause for reflection. If three far-advanced cases are found in a public survey of 10,830 people and four such cases are found in 89 of a general practitioner's patients, which is the better place to look for possible tuberculosis?

One of the best survey areas still untapped by the physicians or other surveys is in the hospitals themselves. It should be routine and required practice to have a chest X-ray film taken of every patient admitted to any hospital. Herein is the most important of all groups for chest X-ray surveys. The potential detection of minimal tuberculosis is most important from the standpoint of complete cure and recovery, more so than far-advanced tuberculosis.

Statistical data will bear out the fact that, if a routine X-ray film of the chest were made for every patient admitted to the various hospitals, many cases of otherwise unsuspected tuberculosis would be uncovered as well as other pulmonary and cardiac diseases. The percentage rate of cases found might possibly be similar to that seen in private practice.

The general practitioner cannot afford to fail to seize his opportunity to detect these cases. He has a public responsibility to do so in light of the above figures, which indicate that if he does not, no volunteer survey will or can detect them. There are certain persons, sick and well, who will not be included in any general survey, whether it be for pulmonary diseases, cancer, heart trouble, or diabetes. These are usually the youngsters under 15 years and the older folk of 55 years and up. Such individuals generally are seen only when they become ill and seek their physicians for treatment or advice. Their complaints may be minor, but, nonetheless, this is the time to exam-

ine these patients for other diseases, and general practitioners are the ones to make such examinations. They should look for signs and symptoms other than those relating to the patient's main complaint (which often is trivial) and be alert for diseases of the lungs and other organs. Their examination should include, in addition to the physical examination, an X-ray film of the chest, a blood pressure estimation, a blood count, and a urinalysis. Only thus can the physician fulfill his obligation to the patient.

Most patients can be convinced of the value of a routine X-ray examination of the chest. Usually an indirect and casual approach is all that is necessary. Even when the consultation concerns only a simple complaint or one in no way related to the respiratory or circulatory systems, it is a rare patient who objects, for example, to a suggestion that he have his blood pressure checked, or who fails to give an amicable reply to the question, "Do you smoke?" From there one may gently lead up to the important, "When did you last have your chest X-rayed?" Such direction of the consultation can nearly always result in not only the X-ray examination, but also a urinalysis and cardiac examination.

However, this ease of persuasion cannot be attributed entirely to the physician's skill. We must thank our advertising media for creating a health-conscious public. Such tractability in patients indicates that at least part of their "sales resistance" to preventive medicine has already been dissipated. Yet it seems but a short time ago that the obstinate patient was the customary one. His refusal of each procedure suggested was almost automatic. He had to be almost herded into the X-ray room; obtaining a blood specimen or basal metabolism rates were absolutely out. The physician escaped frustration only when the patient was too sick to object, and then it was usually too late for any procedure. As recently as 1940, this sort of patient did not think laboratory procedures were worth the outlay in either time or money. It is a relief that this obstacle of ignorance is fast disappearing.

With his way being prepared for him by the publicity drives of preventive medicine groups, the general practitioner can now do more to detect unsuspected disease than can any other individual or organization. He sees 85 per cent of the medical patients in this country. He is, therefore, morally obligated to become thoroughly familiar with all feasible diagnostic procedures and equipment, to employ such procedures and equipment himself if possible, and, if not, to refer his patients to someone who can. The success of preventive medicine and the constant vigilance of the general practitioner are inescapably correlated. And this vigilance must not be sporadic—it must embrace all patients. A careful and complete history, physical examination, and X-ray examination of the chest should be as much routine as is the medical history.

PIONEER DOCTORS IN MISSISSIPPI COUNTY

"Dr. Dafoe has held the newspaper headlines for more than two years and much praise has been handed the country doctors for their work and untiring efforts on behalf of humanity. Today the work of the country doctors is an easy matter compared with the trials and tribulations of the pioneer doctors who helped to care for the early settlers of our county. In checking the records and files available of the doctors who pioneered in and around Osceola, we find the names of Drs. Jas. H. Hazard, J. E. Felts, F. L. James, F. M. Petty, S. H. Steele, H. C. Dunavant, R. C. Prewitt and Thos. G. Brewer.

"Doctors Hazard, Felts, James and Petty, it appears, were engaged in their work here back as far as the 60's. Doctors Steele, Dunavant and Prewitt came to Osceola in the early 70's, while Doctor Brewer came to Osceola in the early 90's.

"We have been unable to gather much information on any of these men except the latter three, except that we find their names more or less connected with the political affairs of the county and Osceola.

"Dr. Dunavant, a native of West Tennessee and one of Forrest's gallant raiders, came to Osceola in 1874 and immediately became active in his profession. Outside of a few years that he later resided in Little Rock, he spent the remainder of his life in Osceola, and passed to the great beyond in the year 1926.

"Dr. Prewitt, a native of Pike County, Mo., a Confederate trooper with General Sterling Price, came to Arkansas, settling in Phillips County in the year 1873. He moved to Osceola in 1877, where he continuously resided until his death in the fall of 1923.

"For many years the work of these doctors was not confined to the local territory. The writer knows that it was no uncommon matter for them to start out on a call that would take them as far south as Marion, as far west as the foothills of Crowley's Ridge, as far north as Kennett and Hornersville in Missouri, and across the mighty river to near Covington and Ripley, Tenn. Horses were the regular means of travel and these good men would sometimes start out in a buggy, going as far as possible in that manner, after which their horse was unhitched from the buggy and saddled and from thence on the trip would be by horseback. Many times it is reported that the doctor would take his horse and travel by steamboat to Pecan Point or some other river point where he had a call, and then ride back through the country.

"An examination of the prescription files of the drug stores at Osceola reveals that there are many special prescriptions under the signature of Dunavant, Prewitt or Brewer, which are kept on file and are to this day still in use, among them being Dunavant's or Brewer's Capsules, Brewer's Baby Powders, and Prewitt's '2500' Gargle.

"It is recalled that prior to the use of the telephone, Dr. Prewitt procured a Texas steer horn, which is still kept as a family keepsake, upon which, when a patient came to the house, would be blown three long blasts and the doctor, upon hearing them, would proceed home to answer the call.

"These old doctors never questioned a man's ability to pay but made the call and hoped for the time when the recipient of their services would make some attempt to pay either in wood, meat, chickens or other foodstuffs, and when they were called to rest they had on their books many thousand dollars in accounts that have never been paid.

"In the early days malaria was the chief enemy to public health and in its most deadly form—'Malarial Hematuria'—had many victims among the timber workers. It is credited to Dr. Prewitt that he was the first doctor in the Mississippi delta to successfully treat this disease. When he read a paper covering his treatment before the old Tri-States Medical Society, at Memphis, of which he was the first president, many of the doctors took exception to the paper and the treatment, whereupon the doctor in response said, 'Gentlemen, my patients can speak for themselves while yours have been buried.' Specific instructions for the treatment of this disease were written out by the doctor and are kept by one of his daughters.

"Of these pioneer doctors some of the descendants still live in Mississippi County, and are actively engaged in various pursuits. Dr. Dunavant has a son, H. P. Dunavant, living at Keiser, engaged in farming and postmaster of that little city. A daughter, Mrs. Susie Keiser, lives at Osceola, and Mrs. Buford Murray, a granddaughter, is a trusted employee of Lee Wilson & Co. at Wilson. Dr. Felts' grandson, Hiram Pope, resides at Osceola, and is farming. Dr. Prewitt has three living children: W. W. Prewitt, a citizen and member of the Osceola bar; a daughter, Mrs. Harry Miller, lives in Osceola; and another daughter who was for many years actively engaged in school work in this county, Mrs. Laura Dunavant, who has in recent years made her home in Memphis. A daughter of Dr. Petty, the late Mrs. Adah L. Roussan, was for many years the editor and publisher of the Osceola Times. Dr. Hazard's representatives here are a niece, Mrs. Chas. E. Sullenger, and three nephews, Sam, George and John Edrington."

DR. B. A. BUGG
Blytheville, Arkansas

"Old residents of Mississippi County still remember one of its most colorful figures, Dr. B. A. Bugg, of Blytheville. Not only do they remember him for his work as a physician and his activities in clearing and developing some of the county's richest farm land, but they remember him for his unusual hobby of growing one of the longest beards in the world.

"For 20 years Dr. Bugg allowed his beard to grow until it attained the length of six feet and six inches. The pioneer physician was fond of hunting the wild game that abounded in the country in the earlier days and often, during cold weather, would wrap the long beard around his neck for warmth. Ordinarily, however, he tied the beard in silk ribbons and carried the end tucked neatly into his shirt.

"Dr. Bugg and many of his friends thought the beard to be the longest in the world, but this belief was shattered when he visited the World's Fair in Chicago in 1893. There he saw a man with a beard one inch longer. Disappointed, he returned home and cut off the flowing whiskers.

"The beard is now in the possession of Dr. Bugg's son, Ben Bugg, prominent local farmer, who still resides in the house his father built in what was then known as the Cooktown community.

"Dr. Bugg was prominently identified with the early history of Mississippi County, where he moved in 1848. As a physician he became widely known throughout the county, but during the Civil War he gave up his practice to serve in the Confederate Army.

"After the war he returned to the county and resumed the practice of medicine. He also began to acquire farm land in this section, moving to Blytheville in 1872. It was here that he began to grow his unusual beard, which has now become one of the most unique keepsakes in this section."

* Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. Chas. W. Dixon, Chairman.

PIONEER DOCTORS IN ASHLEY COUNTY

MRS. M. C. CRANDALL
Wilmot

Christian, Dr. E. J. Physician, Portland, Arkansas. Dr. Christian was born in Ashley County in 1855, he began the study of medicine under Dr. W. J. Loche, now of Petersburg, Arkansas, this county. In 1876 and 1877 he followed farming and during 1878 and 1879 he read medicine. During the fall and winter of the last year he took his first course in Mobile, Alabama.

In May, 1880, he commenced practicing in Union Township, Ashley County, and soon built up an excellent reputation as a physician. In May, 1881, he came to Portland and was here during 1882 and 1883. He took his second course of lectures at Mobile. Graduating in spring of 1884. He was one of 12 out of 35 applicants that graduated. He then returned to Portland, has practiced there ever since and was one of the popular and successful physicians of this county. In April and May, this year, 1890, he took postgradute course at New Orleans.

The Doctor was a member of the "Knights of Pythias." In politics he always voted the Democratic party. Under the same conditions he was of the opinion that the general health is as good on the bayou as in the hills. The disease is mostly of a malarial nature and yields to a thorough course of eliminating tonic and specific treatment. He died in 1901 of smallpox.

RODERICK ALEXANDER BETHUNE

Son of John Bethune (who immigrated from Scotland with his family when he was 14 years old), and Frances Shaw Bethune of Sumter County, South Carolina.

He was born in Sumter County, South Carolina, April 16, 1834. Died at Snyder, Arkansas, February 22, 1895.

He studied at the University of Tennessee at Nashville and Jefferson College, Philadelphia, Pennsylvania, graduating in 1854.

He married Miss Margaret Mays of Maysville, South Carolina. They had seven children.

Dr. Bethune came to Snyder, Arkansas, in January, 1873, and took over the practice of his brother, Dr. Samuel McBride Bethune, who had died in September, 1872. He

lived a very useful life. He was a Presbyterian, and member of Masonic Bearhouse Lodge No. 209.

SAMUEL McBRIDE BETHUNE

Son of John Bethune (native of Scotland, immigrating to America with his family when he was 14 years old) and Frances Shaw Bethune, native of Sumter County, South Carolina.

He was born September 29, 1836, in Sumter County, South Carolina. Died September 16, 1872, at Keener Camp Ground at Snyder, Arkansas, of swamp fever.

He graduated in medicine from University of Tennessee at Nashville in 1859. He came to Arkansas in 1859 from Nashville and located at Snyder, Ashley County. He married Miss Sarah Herren of Snyder. They had six children.

Dr. Bethune was a member of the Presbyterian church, and the Masonic Lodge.

THOMAS R. BURNHAM

Born June 5, 1833, died November 10, 1898. Finished medical school in New Orleans, Louisiana, in the early 1850s, and practiced medicine until his death in 1898. Covered a wide area, riding horseback, answering all calls day or night.

He was married twice, first to Sarah Southerland and after her death to Mary Chiles in 1886. He had four children by his first wife, and two by his second wife.

He was a general practitioner from pills to surgery.

EARLY DOCTORS IN FORT SMITH

First Surgeon at Fort Makes City His Home

Dr. Joseph H. Bailey Helps Organize First Masonic Lodge Attain Fame as Civic Leader

"Dr. Joseph H. Bailey was the first post surgeon at the Fort in Fort Smith. It was through his efforts that the Masonic Lodge was organized in this city and the first meeting was held in his home.

"From an old history written many years ago, it said, 'on or about the first of December, 1847, a meeting of the Master Masons of Fort Smith was held in the home of Dr. J. H. Bailey, assistant surgeon of the United State Army, and after due consideration it was determined to apply to the M.W.G.M. of the State of Arkansas for a dispensation to work.'

"Another article read: 'The lodge held its first meeting at the home of Brother Joseph Bailey, U. S. Army, living in the brick quarters at the post near the town.'

"Born in New York in 1803, a greater part of his life was spent in the military service. He fought in the Seminole War in Florida and in the Mexican War. He was sent as a physician with the Seminole Indians when they were removed to their new home in the Indian Territory and located at Fort Gibson.

"The marriage of Joseph H. Bailey and Miss Mary Reed was solemnized in New York Saturday morning, November 4, 1840, in a Presbyterian church that is still standing. There were 12 children, nearly every one being born in a different state, as the officers were transferred often. His son, Dr. W. W. Bailey, born at Fort Gibson, was the only one to locate in the south.

"The father of Dr. Bailey was a doctor, as were his four sons. Reading, Conn., was named for his maternal grandfather. He was related to John Quincy Adams and one of his aunts was an intimate friend of George Washington's family.

"Dr. Bailey came to Fort Smith in 1836 and his family is still represented in the city. His son, Dr. W. W. Bailey, married Miss Leila Main, daughter of Dr. J. H. T. Main, widely known physician of Fort Smith. Mrs. J. R. Gant, now of California; Mrs. Kate T. Parker, the late William Worth Bailey and J. Mayne Bailey are his grandchildren. The late Mrs. Josephine Buel, formerly of Fort Smith, was a daughter of Dr. Bailey. Arthur Buel is a grandson.

"He had greath faith in the future of Fort Smith and acquired large real estate holdings. He was one of the first owners of Wild Cat Mountain and this property was held in the family for many years, and all of Bailey addition was his property.

"The death of Dr. Bailey occurred from a fall in New York in 1882."

OBITUARY

MELVIN D. DUNCAN, age 55, of Murfreesboro, died September 22nd. A graduate of the Kansas City College of Medicine and Surgery in 1926, he had practiced at Murfreesboro since 1928. He had the distinction of delivering the Ponder quadruplets in 1952. He served as secretary of the Howard-Pike County Medical Society for several terms. Surviving are his wife and a daughter.

THOMAS S. JORDAN, age 79, Magnolia, died September 25th. A native of Columbia county, he had practiced in that county for 55 years, the last 20 being in Magnolia. Surviving relatives are two daughters.

PERSONALS AND NEWS ITEMS

Contributions to the American Medical Education Foundation during September were: Bryon A. Bennett, Little Rock; Hugh R. Edwards, Searcy, and Sam G. Jameson, El Dorado.

Hayden C. Nicholson, Little Rock, addressed the National Federation of Licensed Practical Nurses in Little Rock during October on "A Philosophy of Education for Health Professions."

J. F. Gartman has moved from Hazen to Carlisle.

A. S. J. Clarke, Fort Smith, has entered military service as lieutenant-colonel and has been assigned as surgeon at Red River Arsenal, Texarkana.

A diagnostic cancer clinic under the sponsorship of the Baxter County Medical Society and the Arkansas Division, American Cancer Society, was conducted at Mountain Home, October 2nd, by W. G. Cooper and Ellis Cope, Little Rock.

Harley C. Darnell, Fort Smith, addressed the Pope-Yell County Medical Society October 8th on "Surgical Treatment of Pulmonary Tuberculosis."

J. Clyde Hart, Jr., announces the association of Thomas E. Townsend for the practice of pediatrics at 1310 Cherry Street, Pine Bluff.

The following were registered at the Kansas City session of the Southwest Branch, American Urological Society: Frank Clark, El Dorado; Sam Jameson, Magnolia; G. H. Teasley, Texarkana; R. A. Downs, Fort Smith; H. Fay H. Jones, James W. Headstream, Grady Reagan, Little Rock; Rector C. Hooper, Jonesboro; Morton Wilson, Fort Smith; A. R. Russell, Pine Bluff.

Fellowship in the American College of Surgeons was conferred on the following at the recent Chicago session: J. W. Bassett, Pine Bluff; J. A. Buchman, Little Rock; F. D. Gray, Jr., Little Rock; G. D. Jay, III, West Memphis, and K. G. Jones, Little Rock.

Participants in the Atlanta session of the Southern Medical Association were: Hayden C. Nicholson, Little Rock, "The Medical Curriculum and the General Practitioner"; Jerome S. Levy, Little Rock, opening discussant; Willis E. Brown, Little Rock, section secretary; C. G. Sutherland, Little Rock, "Experimental Studies on the Repair of Ureteral Injuries"; E. T. Ellison, Texarkana, "Results of Incomplete Pelvic Surgery"; James Wortham, Little Rock, opening discussant; K. W. Cosgrove, Little Rock, section chairman, address, "Allergy in Ophthalmology," and Cecil W. Shafer and Leo W. Fabian, Little Rock, "A Comparative Study of Surital and Pentothal Use in Conjunction with Anectine."

James Shuffield has become associated with Drs. Shuffield and Nixon at 1008 Donaghey Building, Little Rock, for the practice of pediatric orthopedics. He served residencies at Ochsner Clinic, New Orleans, and at the Pennsylvania State Crippled Children's Hospital, Elizabethtown.

Elected to fellowship in the International College of Surgeons in the recent New York session were Dale Alford, Little Rock, and J. P. Price, Monticello. Harvey Shipp, Little Rock, was advanced to the rank of qualified fellow and R. F. Hyatt, Monticello, was elected an associate of the College.

Drs. F. Walter Carruthers and Richard M. Logue have moved their offices to 1027 Donaghey Building, Little Rock.

Eva F. Dodge, Little Rock, participated in a panel discussion on "The Role of the Physician in Sex Education" before the Congress of Pan-American Medical Women's Alliance in Washington recently.

James W. Headstream, Little Rock, addressed the Southwest Branch, American Urological Association, at Kansas City, September 21st, on "Rapid Closure of Lumbar Incisions."

Harvey Shipp has been elected vice-president of the Riverdale Country Club, Little Rock.

Louis K. Hundley of Pine Bluff served as chairman of a panel on "School Health Service Problems in Rural Areas" at the Fourth National Conference on Physicians and Schools at Highland Park, Illinois, from September 30th to October 2nd.

Harley C. Darnall, Fort Smith, addressed the staff of the Rogers Memorial Hospital October 12th on "Surgical Collapse Therapy in Tuberculosis."

Melvin R. McCaskill has returned from military service and is associated with Drs. Rodgers and Wickard in the practice of obstetrics and gynecology at 1429 West Seventh Street, Little Rock.

An announcement in The Journal that Lawrence M. Zell, Little Rock, is now associated with Louis K. Hundley, Pine Bluff, is corrected to advise that Dr. Zell will be in Dr. Hundley's office in Pine Bluff on Wednesday and Saturday afternoons. At other times, Dr. Zell will be in his office at 937 Donaghey Building, Little Rock.

The following attended the regional meeting of the American College of Physicians in Tulsa September 19th: S. M. Wilson, Rogers; Driver Rowland, Hot Springs National Park; A. A. Blair, Chas. T. Chamberlain, E. Z. Hornberger, Art B. Martin, Louis Lambiotte and C. F. Boulden, Fort Smith; Alfred Kahn, O. C. Melson, W. M. Hamilton and Joe H. Hardin, Little Rock.

Roger P. Edmondson has moved from Huntsville to Springdale.

James B. Rice has moved from Pine Bluff to Hazen.

W. E. Phipps, Jr., North Little Rock, has been elected to fellowship in the International College of Surgeons.

E. Z. Hornberger, Fort Smith, attended the recent Chicago meeting of the American College of Chest Physicians.

The following were registered at the Chicago session of the American College of Surgeons: J. A. Buchman, Little Rock; A. D. Cathey, El Dorado; Hunter Causey, Pine Bluff; Gilbert O. Dean, Little Rock; R. D. Dickins, Pine Bluff; T. P. Foltz, Fort Smith; Jean C. Gladden, Harrison; F. J. Gray, Jr., Little Rock; J. H. Growdon, Little Rock; Masauki Hara, Little Rock; John W. Harper, El Dorado; William Harrell, Texarkana; Julius H. Hellums, Dumas; A. F. Hoge, Fort Smith; Marlin B. Hoge, Fort Smith; H. G. Hollenberg, Little Rock; Paul W. Hoover, Little Rock; Gilbert D. Jay, West Memphis; M. J. Kilbury, Jr., Little Rock; J. J. Monfort, Batesville; B. L. Moore, El Dorado; J. H. Pinson, Jr., El Dorado; R. E. Rowen, Little Rock; J. F. Shuffield, Little Rock; C. R. Simmons, Pine Bluff; W. Decker Smith, Texarkana; E. J. Stroud, Jonesboro; Peter O. Thomas, Little Rock; W. J. Wilkins, Jr., Pine Bluff.

PROCEEDINGS OF SOCIETIES

At the meeting of the First Councilor District Medical Society held on September 24th in Forrest City, Joe Verser of Harrisburg was elected President and Eldon Fairley of Wilson was elected Vice President. J. H. McCurry continues as Secretary. The next meeting of the First Councilor District will be held in Tyronza on May 20th.

The following addressed the regional meeting of the American College of Physicians at Tulsa, September 19th; "A Clinical Comparison of Anti-Cholingeric Drugs," Joe H. Hardin, Little Rock; "Dietetic Control of Diabetes," Louis Lambiotte, Fort Smith; "The Treatment of the More Common Cardiac Emergencies," W. W. Hamilton, Little Rock, and "Clinical Indications for Valvulotomy," Cecil F. Boulden, Fort Smith.

The First and Third Councilor District Medical Societies met in joint session at Forrest City September 24th for the following program: "Practical Points of Fractures of Children," Beverly Ray, Memphis; "Carcinoma in Situ," Chas. R. Henry, Little Rock; "Common Problems in the Newborn and Their Management," James N. Etteldorf, Memphis; "New Concepts and Treatment for Common Dermatoses," Fox Miller, Memphis; "Management of Commonly Encountered Diseases of the Liver," Drew Agar, Little Rock, and "Arkansas Academy of General Practice," J. M. Kolb, Clarksville. A cocktail party, dinner and dance followed the scientific program.

The Arkansas Academy of General Practice held its sixth annual session at Little Rock October 14th and 15th with the following program: "Massive Upper Gastrointestinal Bleeding," Alfred Kahn, Jr., Little Rock; "Ophthalmology for the General Practitioner," J. B. Cross, Little Rock; "The Art and Science of a Personal Physician," Albert S. Dix, Mobile; "Problems of the General Practitioner in Mexico," J. H. Ross, Morelia, Mexico; "Diagnosis and Treatment of Acute Poliomyelitis," Robert L. Henry, Little Rock; "Obstetrics in General Practice," W. A. Fowler, Fayetteville; "What's Cookin' in Medicine," R. B. Robins, Camden; "The Acute Abdomen in Children," Frank Kumpuris, Little Rock, and "Surgical Diseases of the Chest," James E. Dailey, Houston.

The Pulaski County Medical Society was addressed October 5th by William Alan Richardson, Editor Medical Economics, on "New Targets for Medicine."

Edwin F. Gray, Secretary

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Steri-Vials

10-cc. vials of 1 mg. (10,000 I.U.) per cc.

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• SPECIAL FEATURES

Committee on Cancer Control.... 111

The Practice of Medicine is a Religion 112

Obstetrics in General Practice 116

What's New and True in Internal Medicine 120

• FEATURES

Editorial 124

Report of the Joint Committee on Chest X-ray 124

Public Relations 127

Tuberculosis Abstracts 128

Obituary 129

"Sparks" from the Secretary 130

Personals and News Items 130

Proceedings of Societies 132

Woman's Auxiliary News 132

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COMMITTEE ON CANCER CONTROL

C. A. ARCHER, Chairman, Conway

THE ARKANSAS STATE CANCER COMMISSION

Through the joint efforts of the Arkansas Medical Society and the Arkansas Division, American Cancer Society, the Arkansas State Cancer Commission was created by the 1945 state legislature. In this manner state funds were made available for the hospitalization of indigent patients with cancer. Subsequently Federal funds were made available on a limited basis to supplement this service to indigent patients in the state. 65 patients were hospitalized the first year and this number increased to 1,808 during the fiscal year of 1951-1952. The Commission also provides funds and equipment for the seven permanent tumor clinics in the state at Jonesboro, Pine Bluff, Little Rock (2), El Dorado, Texarkana and Fort Smith and operates the Central Cancer Registry, the statistical branch.

The determination of eligibility for hospitalization or domiciliary care (funds for domiciliary care are furnished by the Arkansas Division, American Cancer Society, but disbursed by the Commission at the request of participating physicians) rests solely with the attending physician. Patients are certified by the physician as unable to meet the costs of hospitalization and medical treatment. Payment for care as a hospital or as a domiciliary care patient is made upon this certification by the physician with the patient's supporting signature. The program is in no sense a part-payment procedure whereby the Commission makes a part-payment and other funds are provided to meet additional parts of the medical or hospital services rendered. Eligibility for hospitalization means that hospitals accept such patients for the per diem rate paid by the Commission and that other funds will not be sought from the patient. Physicians accept these patients as fully indigent patients, unable to meet the costs of either medical or hospitalization charges. The Commission makes no payment to physicians for their treatment.

The Commission has enjoyed the fullest cooperation from the physicians of Arkansas, over 300 participating in the program during the fiscal year of 1951-1952.

THE PRACTICE OF MEDICINE IS A RELIGION*

ALFRED R. SUGG, M.D., Ada, Oklahoma

There has been much change since I was here. The one thing for which I am proudest is that Arkansas has lived down the stigma of the "slow train" and the "hillbilly" and is now the envy of many states that erstwhile were prone to bolster their own inferiority complexes by attempting to belittle you. I personally know of several people who have been here recently who "came to scoff but remained to pray."

The big news here, as at home, is the Government farm problem—that's another change. It used to be the farmer's problem. The traffic problem is getting acute at home. Takes a turnpike to handle the traffic up to Washington and back. The biggest jam was when the Flood Relievers coming back met the Drouth Relievers going up.

It has really been dry out west though. A man told me it was so dry out in the Panhandle the Baptists had gone to sprinkling and the Methodists were just using a wet sponge.

When I was asked to make this talk, and especially to speak on the assigned topic, I squirmed and tried to decide that I was too busy. It is easy to sit around and fan the breeze and express our innermost thoughts and feelings informally, but to forge them into an address is a different matter. It seems to me that all men are inherently religious —of all races and throughout all history there seems to be an urge to worship and seek the divine for a solution concerning the many mysteries of life. Why then have we become so shy? Largely because hair-splitters have made it look silly, and rather than to seem queer we have turned in our suits.

For a long time Isaiah 6:8 has been one of my favorite texts. The Master was listening to a difficult problem posed by the old prophet. He agreed that the job should be done, but he said: "Who will go for us and whom shall we send?" To which Isaiah promptly replied, "Here am I. Send me." So I could not in good conscience say, "Let George do it."

> I cannot conceive of an ordered Universe without an Architect.
>
> I cannot conceive of the Architect.
>
> I cannot conceive of the Infinity at which the Architect started.
>
> But here we "strain at gnats and swallow camels."

For these I **can** conceive:

> Love, Beauty, Truth, Service, Duty, Sacrifice, Tolerance, Humility, Faith.

Neither can I understand all of the Bible or any of the great religious books. **But** I can understand enough to keep me **busy** a dozen life times and I shall not quibble over the minutiae and thereby fail to grasp the spirit.

I wouldn't know a perfect definition for religion, but until a better one comes along, I'll take a line from 1st James:

> "Pure religion and undefiled before God is this: To visit widows and orphans in their affliction and to keep ourselves unstained from the world."

How does medicine particularly rate to be called a religion?

It's because Faith is inherently its chief ingredient and to a greater degree than is found anywhere else in human relations. Faith in the Supreme Architect of the Universe has come to be my own religion, for as I learn more I seem to know less. It is very wholesome attitude to be a skeptic. Doubting Thomas has always been a favorite of mine. But when a man becomes a cynic he is sick and needs a doctor quick. And when we come right up to the lick-log, Faith in the physician is the very foundation of the practice of medicine.

Religion is as personal as your toothbrush. It cannot be reduced to a common denominator and should not be. Carruth's poem says it nicely, and our trip through the beautiful hills calls it to mind:

> A haze on the far horizon.
> The infinite tender sky.
> The ripe rich tint of the cornfields,
> The wild geese sailing high.
> And all over upland and lowland
> The charm of the goldenrod.
> Some of us call it Autumn
> And others call it God.
>
> * * * *
>
> A picket frozen on duty.
> A mother starved for her brood.
> Socrates drinking the hemlock.
> And Jesus on the road.
> And millions who homeless and nameless
> The straight hard pathway plod.
> Some call it consecration.
> And others call it God.

Is the present unrest and criticism of the Medical Profession deserved? Hardly a week goes by that some paper or national magazine does not feature some article on the doctor-patient rela-

* Read before the Arkansas Medical Society Public Relations Institute, Little Rock, October 31, 1953.

tionship, and it is mostly critical of the profession. Of course, much of this is due to yellow journalism and headline hunters, but we must also realize something is short of the ideal or else all these state societies would not have grievance committees. Ethics has been bandied about since the practice of medicine began and the solution has not been reached yet. Our chief difficulties, we have tried to pass laws to bind and to force us to be good boys. Ethics is not hard to define. If we use it for our advantage and to anyone's hurt, it ain't ethics. If it requires a code or motion to make it ethical, it won't be. The papers have been full recently of the Greenlease kidnap case in Kansas City. We have, at home, a ring of 14 young men who have been rounded up as cattle thieves; who have been slaughtering their beefs in the pasture, with no regard to sanitation, and selling them to an unsuspecting public.

Neither of these is much worse than the doctor who will split fees. On first thought it is not such a heinous crime, but when you consider that your sick child is put on the auction block and the unscrupulous doctor gets a fee about which you know nothing, especially when you consider that he must employ only the scum of our profession to do a surgery, there you really have a crime. I have little more respect for the doctor who recently sold gamma-globulin for $100 per shot to a scared mother who thought her children had been exposed to polio. And also in the same class is the doctor who undertakes to nail a hip for an old lady when he had available a competent surgeon and when he himself had never even assisted in such an operation. A little comparable, but still definitely on the shady side is the promiscuous giving of hormones, "cold shots," penicillin, etc., without any regard as to whether they are really necessary or not. I believe it is even criminal to do too much unnecessary work. We get so lost in the maze of lab tests, that we don't have time to just speak to a scared person. If we are too busy for that—we are just too busy.

And what about the matter of fees itself? There has been an effort all my lifetime to standardize medical and surgical fees. It simply cannot and should not be done. What then should be the fee for a given piece of work? Years ago I had a young surgeon who came down from a large city in the East who did a wonderful operation for a child and charged $300 for his work, which certainly was not too much in view of the responsibility assumed. However, when the parents came to settle, I charged the man $40, for which the young surgeon took me to task severely and asked me why I had reduced it. I replied with a question, merely asking if he knew how many drops of sweat there were in a bale of cotton. When people are willing and anxious to pay us within the limits of their capacity, I hold it is totally irreligious to burden them with debt that reduces them virtually to slavery. And each case, must of necessity, be a law unto itself, and only the man with a Christian heart is capable of adjudicating it properly.

One of the great troubles before our grievance committee, is abuses of the Blue Cross and Blue Shield with which we have to contend with continually, and I suspect you do, too. We are morally bound to abide by the spirit of that contract because the letter of the thing is subject to abuse by the unscrupulous. If we use the Blue Cross to keep a patient in the hospital a day longer than necessary, or to send one there that could be cared for in the home or office, merely for our convenience, we are breaking faith with the holders of the certificate and with our fellow doctors. There is no czar who can judge us, and it would be repulsive to the physicians of the state if we were to attempt to supply one. The matter then is one for our personal conscience, and if that is not practical religion, then I am in the dark entirely on the subject.

I am frequently asked why I am so positive that doctors must be superior persons to make the deal work. Why, for instance, must they be better than lawyers. In the law there is a term "Caveat Emptor," which means, "let the purchaser beware." If you and I swap horses, or I buy an automobile from you, barring fraud, it is presumed that I am capable of taking care of myself, and if I get skinned, it is fair. If I go to court and find my case being tried by a judge who has a financial interest in the outcome of the case, he will promptly disqualify. In addition, I have the benefit of council, judgment of the jury, and finally the right to appeal to a higher court for a review. Such is far from the case in medicine. The doctor is automatically a prejudiced judge. He has a financial interest in whether the fibroid tumor is removed or not. There is no council, no jury, no judge, no appeal. For once this uterus is removed, that is it, and only in rare instances can any review board say at a later date whether it should have been done or should not have been done; at any rate it is too late. I submit to you that it takes a man with a high moral conscience, bed-rock personality, and a religious concept of his duty to be able to pass judgment when he is financially interested and when he has no critic. We must even go farther than that. We must protect the patient from himself. Many people all but demand both medicine and surgery, when neither is in-

dicated. Caveat emptor does not apply here, and if you believe so, you should turn in your suit. Is the merchant or the artisan bound by our rules? That depends whether you think a dollar or a bolt of calico is on par with the soul.

In my opinion we should go as far as possible to discard the business concept in medicine and become professional people. When that is done, there will be no charge for X-rays, or EKG's, or lab tests, or what have you. Our only charge would be for our professional opinion, our professional services, and all these gadgets would simply be our tools to enable us to arrive at the proper conclusion. If we ask a carpenter to build a chicken coop for us with a specified fee, and he does so to our satisfaction, we care little whether he uses an adze, or a grubbing hoe with which to do the work.

On each side of the balance in our relations to the public are two terms that are constantly at logger-heads and striving for supremacy: False Pride, and Humility.

Many of us have our offices placarded with certificates, degrees, citations, etc. If we could find room for one more, I would suggest one that might do us more good than printed evidence of our accomplishments. When Bobby Burns was sitting in church and observed the louse crawling, unnoticed, up the back of the dress of the lady in front of him, he remarked:

> I would some power the giftie gi'us
> To see ourselves as ithers see us.

And if that could take hold of our minds and consciences, there would be less condescension, arrogance, less tendency to flaunt our successes in the teeth of our less fortunate customers who do not appreciate our wives flaunting the new fur coat or Cadillac when they have had to suffer sweat, blood, and tears to meet their obligations to us.

False pride is the force behind many of our actions that create a bad taste in the mouths of the public. In a large city recently I went up on an elevator and noticed that the operator, a girl, was visibly agitated. She has just let a man out on the floor below, and I noticed that he was groping about, evidently blind. She remarked: "He lives here. He has been blind for years. He won't even admit his condition to himself. Too proud." His physical world was no less illuminated than his soul or mind. "Pride goeth before destruction, and a haughty spirit before a fall." And none are so blind as they who will not see. There is no profit to us in medicine to close our eyes to handicaps and short-comings. We should be on the alert to discover them ourselves, rather than having them pointed out to us from any quarter.

One of the big blind spots that continues to harass the profession is propagation of feuds and jealousies. Any one can get mad, but only an imbecile deliberately fans the flames of dissension. False pride is the chief urge which pushes a physician into undertakings for which is not equipped to the hurt of himself, his patient, and the profession. A successful doctor was asked recently the secret of his success, to which he replied: "Knowing what I could not do." It is easy to point out the short-comings of a man or a profession. Any one can find fault. The natural question is to have any specific recommendations that will benefit the situation.

The air waves and the mailbox, and the forum have been full the past few years of the socialized medicine discussion. That particular bugaboo could be eliminated, I believe, if we could change the word just a little and make it "Sociable Medicine." When the people are sick nothing will take the place of friendly, forthright attempt to understand their problems; not even the administrations of the specialist, and in some quarters that is a panacea for all ills.

That word "Specialist" brings up a point worth considering. If we don't look out, "specialist" will soon be synonymous with technician. I am a specialist, and reasonably proud of it, but in a quarter of a century, I have never turned down a patient on that account. We must work out some way to combine the talents of the specialist with the generally accepted idea of the old-fashioned family doctor, and it can be done. Old Dr. Dooley, our family doctor in Yell County, had six months total of reading medicine, yet in many respects he was one of the finest physicians that has come across my life. We even got better and the family went to sleep just when mother remarked that Doc Dooley was coming in the morning, although we all knew that he had practically no medical education.

Fifty years ago the Mayo Clinic began to bloom and flourish and there has developed some of the super-specialists of all times. I am for both of the means of bringing relief to sick people but neither is the entire or practical answer. A plan by which we could come down in Arkansas and get Doc Dooley by one hand, and go to Rochester and get the super-specialist by the other and put those boys to work as a team would seem to be ideal and I know for a fact that it will work. And if that idea could spread generally, I believe it would do much

to quiet the fears and criticisms of a distrusting public.

One of the weakest procedures in our medical education setup is the method of admitting students in the medical schools. I know the deans are confronted with almost unanswerable problems, and are, I'm sure making an effort to do something about it. This matter of a straight A student only being admitted, is a constant thorn in my side. Actually a few recommendations by people who are your friends, and a certificate that you made a straight A, is the open sesame to the medical school. The only trouble is that you can be a straight A damn fool, just as well as a straight A student. I believe that much more attention should be paid to the type of young man who is admitted to the medical school in the first place, for once he is in, and has his certificate and his license, it is all but impossible to pass a law stringent enough to curb his unscrupulous activities if he desires to pursue them. A little money spent in quiet investigation of the boy's background, his activities, his character, would be money well spent, and I believe that as a sideline that one of the most important things to be determined is whether the boy himself has a burning desire to go to medical school or whether it is a fond mother who wants to send him.

Many of our troubles stem directly from the idea planted in the minds of young men that an M.D. degree is the pot of gold at rainbow's end; that wealth and fame and the glamorous life lies here. Someone should take the candidate out to the woodshed and reveal to him the facts of life before he makes his decision. The zeal, the willingness to sacrifice, and unselfishness of a foreign missionary exemplifies quite well the requirements necessary for a prospective physician and these are religion at its best. To be sure a missionary to China expects to eat rice, sleep on a straw mat and share it with a few lice, but he goes into that sort of life with his eyes open and counts his gain in the satisfaction he receives in his soul for a job well done.

Not until babies decide to be born between 9-5 and not until careless people decide to stay off the highways at night will physicians be able to live a life of ease. And not until Utopia is ushered in and everybody has money will he be able to arbitrarily set a fee for his work. Not until people cease to be frustrated, ignorant and afraid will he be able to do a "push button" practice and to ask the nurse to give another shot but instead will be required to patiently give of himself in abundance. More important still, until he can look back on a lifetime of practice and truthfully say that no person whether black or white, old or young, rich or poor, day or night has been turned away, can he lay claim to a portion of the rich heritage of medicine and if a man is not willing to pay the price he had better not start.

Beyond the Alps Lies Italy. That was the poetic title assigned to me by a teacher for my high school graduation essay up in Bellville in 1913. You will agree that it was quite an ambitious assignment for a boy who scarcely knew his way to the county seat, let alone Italy. As school boys and medical association began to scale the Alps, and perhaps have succeeded in reaching the top of a hill or two, a new elevation only seems to bring into view formidable peaks that were not even visible before we began the ascent. Medicine has made definite progress toward the Elysian fields, but many jagged cliffs yet intervene. We have only reached the first peaks of some, while others we have not even attempted to climb. I believe with all of my heart, in our climb to the heights, that we will go farther and faster, when we learn that attitudes are as important as information; that people should be studied as well as pills. That since our profession deals intimately with God's masterpiece, we tread on sacred ground as we practice it. In short, that our greatest need as physicians is to weave religion into the very warp and woof of our daily lives.

OBSTETRICS IN GENERAL PRACTICE*

W. A. FOWLER, M.D., Fayetteville

Oliver Wendell Holmes eloquently referred to the obstetrical patient as "the woman about to become a mother, or with her new-born infant on her bosom" and urged her most particular care "wherever she bears her tender burden or stretches her aching limbs." The need for better obstetrical care has always been present and has been urged by careful students of obstetrics.

In my opinion the family doctor is generally best suited to give this care. While I greatly admire and respect the achievements in surgery, I do not believe the average surgeon is so well suited for the best practice of obstetrics. By temperament and training he is accustomed to prompt active surgical interference so necessary for best results in his field. He is prone to lack a full appreciation of the marvelously protective physiology of normal labor and the patience so often necessary for the best results. Unfortunately too many general practitioners have assumed the surgical attitude toward obstetrics. This attitude alone equals poor obstetrics; if combined with poor technic it equals perhaps the poorest obstetrics.

If the family doctor is to do the obstetrics he should do good obstetrics. Every medical student should be required to observe and, under proper supervision, conduct normal deliveries in the home. Unfortunately some medical schools have abolished the out-patient department in obstetrics—this should not be so. Internes should have good training in hospital deliveries and in the hospital treatment of obstetrical complications and emergencies. The family doctor, at the bedside, in the literature, and in post-graduate courses should studiously strive to increase his knowledge of sound obstetrics, both normal and abnormal. He too often is prone to waste his time and money with the literature and post-graduate courses of faddists, learning to do poorer rather than better obstetrics. These faddists have a new-dealist genius for clothing monstrous proposals in attractive terms. Just compare "painless childbirth," "routine prophylactic version," "routine prophylactic forceps," and "routine prophylactic episiotomy" with "compulsory health insurance," fair employment practices," etc. I shall briefly and, of necessity, dogmatically outline a few of the things I consider important for better obstetrics by the family doctor:

Early consultation with the doctor for proper prenatal care is desirable. At the first consultation the doctor should get the menstrual and obstetrical history, past illnesses and present state of health. A general physical examination should be advised including pelvimetry unless the patient has had a normal labor with a normally large baby. She should be instructed in the hygiene and the danger signs of pregnancy and advised to come to the office once a month for the first five months and every two weeks thereafter for blood pressure and urinalysis. An abdominal examination should be done at the call between six and four weeks before expected confinement.

In advising the ideal obstetrical care I believe it is proper to state our conception that the obstetrical patient ought to have as high degree of skill and as particular care as her husband would expect if he were to have an appendectomy. The amount of work entailed and the rewards of good care are certainly not less. I suggest that the doctor now explain his charges if they are not generally well known. My own charges at Fayetteville were: for hospital and delivery of a multipara —$35 of a principara—$50; $15 extra for home delivery. General physical examination $5, office calls for blood pressure and urine examination $2 each. A reasonable charge is made for medicines furnished by me. These charges may vary with place, circumstance and the inclination of the doctor. They should be fair and as reasonable as is consistent with a continuing high quality of service and comparable to customary charges in the area. Specialists often charge in proportion to the ability of the patient to pay, but uniformity of charges is usually more practical for the family doctor.

Multiparas among the poor may desire to omit much of the recommended prenatal care. They should be advised at the very least to come to the doctor's office once a month after the fifth month for blood pressure and urine examination and for the antepartum abdominal examination, and to call the doctor if danger signs occur.

I consider the general physical examination so important to the well-being of the patient that I urge it for all patients. I have kept my charges extremely reasonable—only $3 more than for the routine office call—so that it should be easily within the reach of all. It should be as careful and comprehensive as we are able to give. It should include height, weight, temperature, pulse, blood

* Read before Sixth Annual Assembly, Arkansas Academy of General Practice, Little Rock, October 15, 1953.

pressure, the eyes, nose, ears, mouth and throat, reflexes, heart, lungs, kidneys, abdomen, pelvis, urinalysis, and complete blood count. Unsuspected abnormalities will frequently be found and their treatment may add substantially to the comfort, the safety, and the future health of the patient.

Redness of the pharynx with excess of mucous secretion, a history of head colds with sinus discomfort, cloudiness on transillumination of the sinus areas and, if chest X-ray has been taken, increased hilar and peribronchial shadows toward the bases of the lungs are diagnostic of chronic sinus infection. Instructions to always keep warm and dry and the administration of small doses of an antibiotic, such as one sulfadiazine tablet after meals and at bedtime will usually promptly relieve the symptoms and by reducing the infection lessen the toxic burden of the liver. Good liver function is very important in obstetrics.

Peridental infection and carious teeth should have appropriate dental treatment.

A history of low fertility, previous abortions, and perhaps sensitivity to cold, and overweight with a dry skin, hirsutism, and a low pulse—pulse pressure product are almost diagnostic of hypothyroidism; if confirmed by a basal metabolism test the needed amount of thyroid should be given.

A history of rheumatism or of legache or growing pains, with perhaps nosebleed, in childhood, especially if there is easy fatiguability, dyspnea and palpitation on exertion, increased pulse rate, wide pulse pressure and unexplained anemia, with or without a heart murmur, would suggest possible rheumatic heart disease and should call for a chest X-ray, electrocardiogram, and sedimentation rate. Treatment of low-grade rheumatic heart disease by avoidance and treatment of infections, and more rest will nearly always result in prompt and steady improvement and contribute substantially to the patient's future good health.

One should regularly, at examination, press underneath the right costal margin for a tender gall bladder and hammer percuss the kidney regions for tenderness; low grade cholecystitis and pyelitis are rather frequent among pregnant women. Both usually respond promptly to appropriate medical treatment.

These illustrations will indicate some of the benefits that might result from careful physical examination. Generally speaking, abnormalities are treated just as if the patient were not pregnant. An exception is cervicitis, in which case the patient is advised to have electro-cautery treatments for its cure after her confinement.

The patient is given a daily multi-vitamin capsule and a preparation of vitamin B complex with iron. She is given a list of the so-called protective foods—milk, eggs, meat, fruits, including citrus fruits, vegetables and whole grain, and is advised to eat these every day. Except a small amount of butterfat she should avoid fats generally, such as fried foods, fat meat, fat in cooked vegetables, desserts and salad oils. These things, with plenty of mental and physical rest, proper attention to elimination and the prompt and adequate treatment of infections enhance the adequacy of liver function and promote the consummation of a healthy and happy pregnancy and labor. The patient should be told that patients who follow this routine will rarely have any symptoms of early or late toxemia. Should they occur they should be promptly treated before serious damage has occurred. Reassurance, more rest, and intravenous administration of pyridoxine and thiamine will usually promptly relieve nausea of pregnancy; the same treatment plus a daily small dose of magnesium sulphate will usually promptly relieve the toxemia of late pregnancy.

The patient should be told to go to bed and call the doctor in case of painful uterine contractions or bleeding.

Rest in bed and progesterone will usually prevent a miscarriage or premature labor. I have also given morphine and atropine if the pains are severe or if they continue.

"Painless, casueless bleeding in the last trimester of pregnancy equals placenta previa" in nearly every case. The doctor responds promptly to the call on account of bleeding. He should endeavor to ascertain the location of placental attachment by outlining the area of the placental bruit. If the bruit is heard just above and on both sides of the pubic and the presenting part rides high he can be pretty sure he is dealing with a central placenta previa. The treatment of placenta previa is to do either the most or the least. In central placenta previa the treatment is elective cesarian section. The bleeding usually begins before the time of labor. Unless the amount of the bleeding is considerable an effort should be made to carry the case along with bed rest into the ninth month of pregnancy if possible before section. Marginal placenta previa usually does not bleed until about the beginning of labor. Rupturing the bag of waters, permitting the head to press down against the lower uterine segment usually promptly stops the bleeding and permits a normal spontaneous delivery. An abdominal binder especially tight above may help control it

if slight bleeding continues. Vitamin K may be given to lessen the amount of bleeding. Placenta previa cases should be hospitalized if possible so that careful observation and transfusion, if needed, are more feasible.

The antepartum abdominal examination is very important to determine the presentation, position, attitude and station of the baby, and correct if possible, any unfavorable condition. The abdomen must be bare and the hands of the doctor clean and warm and the examination made gently between the periodic contractions of the uterus, using the balls (not the ends) of the fingers. The most favorable conditions are vertex presentation, anterior position, flexion attitude, engaged station or presenting part engagable. If the head is above, an effort is made to change the presentation to vertex by gentle abdominal manipulation while the uterus is fully relaxed; this can usually be done rather easily. If the position is posterior the narrow, irregular side, rather than the broad smooth back of the baby is felt and the shoulder will usually be toward the flank (more than 7 c.m. from the midline) rather than near the midline and the cephalic prominence (the forehead) can be felt above the symphysis on the opposite side. The fetal heart sounds are usually heard best over the anterior shoulder. Pressure of the forehead and the breech toward the opposite side and backward may lift the posterior shoulder over the spinal ridge and convert the position to occipito-anterior. The knee-chest position followed by the Sims position on the side corresponding to the fetal body may occasionally accomplish the same results and the latter before and during labor will at least favor better flexion and to that degree improve the mechanism of labor. The woman with a posterior position at labor should be told that the position of the head will tend to make the labor somewhat slower but that if we are all patient the labor should otherwise be quite normal. If the patient is first seen in labor the same examination should be made although the chances of correcting mal-presentation or mal-position are slim on account of the hypertonicity of the uterus. If the patient is a primipara an effort should be made to roughly evaluate the pelvic sufficiency for spontaneous delivery. If the head does not project beyond the level of the symphysis (is engaged or engagable); if the bones are thin; if the symphysis is narrow and approaches the horizontal rather than the perpendicular (upright position); if the folded fist pressed against the perineum will pass between the tuberosities of the ischia; if the distance between the anterior superior spines can be barely or not at all spanned by the doctor's hand; if rectal examination reveals the sacrum to be well hollowed out rather than straight; if the interspinous and inter-trochanteric measurements appear rather wide in comparison with the intercristal; and if the presentation and position are favorable—all these things point toward a quite normal spontaneous labor. Opposite findings may raise reasonable doubts that spontaneous delivery will be possible. The test of labor will often prove these doubts to be ill-founded, and, if properly managed, will do the patient no harm and be no contra-indication to cesarean section should this method of delivery later prove necessary.

If this has not been done previously, at the beginning of labor the primipara should be given a brief description of the nature and probable duration of the three stages of labor. She should be told that the first stage, the stage of dilatation, consists of periodic contractions of the uterus and gentle and gradual dilatation of the cervix until it allows the head to pass through—this usually requires twelve to fifteen hours. Any effort to hasten this by bearing down or otherwise, not only may needlessly wear her out but may actually hinder the normal progress of dilatation. She should take light nourishment as needed, get sufficient rest and drink plenty of liquids, including fruit juices. She will usually be happier to stay up during this stage except for needed rest. If she does these things and keeps herself calm and relaxed she will generally find the pains not too bad. Generally speaking the labor will be more normal and better for herself and her baby if little or no narcotics are given; however, should the labor be unduly long or difficult we will give her something to take the edge off the pains and enable her to get a little more rest.

When the cervix is fully dilated the head passes through it into the vaginal canal. If it has not previously done so the bag of waters usually breaks and she instinctively feels the urge to bear down with the pain. We will make a rectal examination then and tell her if she may do so. This is called the second stage of labor and usually lasts two or three hours. About an hour before the baby is born the head will begin to show during the pains. We will watch closely then and if it appears that the perineum is about to tear we will tell her to open her mouth and breathe rapidly during the pain so as to give the tissues time to stretch and thus avoid or minimize tears.

After the baby is born the contraction and relaxation of the uterus continue until the placenta is separated from the uterus, when it is easily expressed; this usually requires twenty or thirty minutes. This is the third stage and ends the labor and we are confident she will feel very well and

happy and have a fine normal baby. (The reading of these instructions required two minutes and fifteen seconds.)

The patient is thus psychologically prepared for intelligent cooperation which she will usually gladly give.

Relief of Pain: The primipara given this psychological preparation will rarely demand or expect excessive narcosis. When a narcotic seems indicated I consider morphine 1/8 gr. and atropin 1/300 gr. given not oftener than every four hours and not within four hours of expected delivery perhaps the best. If the patient is particularly nervous chloral hydrate 3 to 5 gr. or phenobarbital 1/2 gr. may be helpful. If indicated in the second stage I consider ether short of anesthesia given by inhalation during the pains to be best. Multiparas usually need no narcotics and are better off without them. I consider heavy narcotization to secure complete relief of pain very wrong. We lose the valuable cooperation of the patient. We increase the incidence of operative delivery with the danger of petechial and massive cerebral hemorrhage. It is not unreasonable to suppose that the accompanying severe anoxia may permanently handicap the child by irreversible damage to the delicate nervous structure of the brain.

The doctor himself must not be guilty of meddlesome interference in the first stage of labor. He must remember that the fully dilated cervix will be pulled up past the head and beyond the reach of the examining finger so that no part of it can be felt. Bearing down efforts must be strictly forbidden until he is sure this has occurred. Attempts at manual dilatation of the cervix are wrong. The manually dilated cervix is a manually torn cervix in nearly every case. Most cases of hemorrhage are the result of a torn cervix. Laceration of the cervix almost never occurs in a properly managed first stage of labor.

A nurse or other trained assistant, if possible, is greatly to be desired in home deliveries. She should be taught the technic and interpretation of abdominal and rectal examinations so that she can intelligently follow and report the progress of labor. She can save the doctor much work and valuable time. If she is tactful she can add much to the morale and comfort of the patient. It is possible that the licensing of such a person as a midwife for the delivery of normal multiparas in the home might be a pretty good solution of the problem in very isolated areas where the demands upon the doctor may be excessive.

I am confident that in the aggregate pituitrin has done much more harm than good in obstetrics. In my opinion it is rarely if ever indicated. I have routinely given a teaspoonful of the fluid extract of ergot after delivery of the placenta.

A well equipped labor bag is a necessity for good obstetrics in the home. In the conduct of labor and in the occasional performance of such procedures as low forceps and repair of the perineum the aseptic conscience and technical skill of the family doctor should equal that of the finest surgeon.

I appreciate the value of good hospital obstetrical service. In recent years there has been much agitation for all deliveries to be in the hospital. From the standpoint of the patient—which ought to be our viewpoint—I do not believe this is even desirable. It will certainly be a long time before it is a fact. Many doctors refuse to do home deliveries at all. With all kindness and respect for any of you who may take this position I believe this is wrong unless there are doctors available who will do so. Because of this many women are being delivered by well meaning but wholly ignorant neighbors. They are being deprived of the proved great benefits of obstetrical care by a competent doctor. If the medical profession becomes so high-powered as to refuse our best medical care to these patients, then it will be time to say, "Look out, Doc."

It is good for our souls sometimes to wait rather than always to hurry; to travel sometimes over rough roads that they travel regularly; to sit where they sit; to sleep where they sleep and eat what they eat. These things develop deep and lasting understanding and friendship and may make of one's mind a veritable Fort Knox of golden memories.

WHAT'S NEW AND TRUE IN INTERNAL MEDICINE*

CHARLES A. THOMPSON, Texarkana

Many advances have been made in the field of internal medicine this past year. To include all of these in the time allotted, would be impossible. Instead, I have tried to choose a few subjects which I hope may be of some practical value. Whether these recent advances are true, I cannot say. Many are accepted today and abandoned tomorrow, so that what I shall review should be examined and tasted, but not necessarily swallowed and digested.

In reviewing the literature, one is impressed by the large number of articles devoted to the use and misuse of the antibiotics. Such widespread use of the numerous antibiotics has resolved many of the problems that we have with the infectious diseases, but at the same time has created a good many new ones, the most important of which are the increasing number of resistent strains of bacteria, the potentially serious side effects and the ever-increasing number of allergic reactions. We all should accept the responsibility of educating our patients that every sniffle doesn't need a shot of penicillin and every cough doesn't need a round of terramycin or aureomycin.

All of you are familiar with the severe gastrointestinal reactions that may occur following the use of the broad spectrum antibiotics. The troublesome and often serious reactions are usually due to an over-growth of candida albicans or certain strains of staphlococci which may be present in pure culture and cause a severe diarrhea. Fatalities have been reported in older people with this complication. Severe ano-rectal disease with bleeding, ulceration, and irritation may also result from the use of these antibiotics.[1]

This overgrowth of resistent bacteria may also occur in pulmonary infections treated with these drugs. A new infection may occur as a superimposed bacterial pneumonia and cause persistence of clinical findings and X-ray changes.[1] This should be kept in mind, and when suspected or proved by bacterial studies, another drug used to combat the new infection. The same is true of urinary tract infections.

It is generally accepted that aureomycin given in doses above 3gms daily for any period of time, may cause liver damage. Jaundice may occur but is usually transient and disappears when the drug is stopped. In the differential diagnosis of jaundice, it should be remembered that urobilinogen may be absent from the urine and feces of patients receiving aureomycin or terramycin. This is apparently due to the reduction of certain bacteria in the intestinal tract.[2]

Whether aureomycin is beneficial in certain cases of acute hepatic disorders, remains to be seen until further studies are done.

It is believed now that a lower dosage of aureomycin that was previously used in the treatment of bacterial pneumonias is just as effective. Most cases respond readily to 250mgm every 6 hours.

Mention should be made of a new penicillin compound marketed under the name of neopenil which has been shown to give higher concentrations of the drug in the pulmonary tissue as compared with ordinary penicillin. However, it would appear that this drug is having the same trouble as plain penicillin in its inability to penetrate chronic bronchial and pulmonary lesions surrounded by abundant fibrous tissue.[3]

The question of synergism and antagonism among the various antibiotics remains unsettled at present. There now seems to be fairly complete evidence that the broad spectrum antibiotics can interfere with both penicillin and streptomycin action in experimental infections but the clinical significance of these findings has not been fully revealed.

One investigator has emphasized that fixed synergestic or antagonistic drug pairs do not exist. That is, a given combination may be synergistic against one bacteria, antagonistic against another, and indifferent when acting on a third. He feels that it is the behavior of the specific microorganism when treated with the component members of the drug pair that determine the combined effect.[4]

A new antibiotic, called erythromycin or ilotycin, has entered the scene and I am sure you all have used it by now. It is an oral preparation similar to penicillin in that its major action is against the gram positive group of organisms. Until more is known of its indications and potentialities, it can perhaps be of greatest value in those cases of gram positive infections which are allergic to penicillin and other more commonly used antibiotics.

Progress in the field of cardiovascular disease has kept pace with the other specialties. Most of this progress has been along the line of a better

* Read before the 77th Annual Session, Arkansas Medical Society, April 22, 1953.

understanding of methods of treatment that have been in use for some time. Surgery has again stepped on the stage and is offering prolonged or permanent relief to many otherwise hopeless cardiac cripples. It appears that interatrial septal defects are well on the way to being added to the ever-lengthening list of curable congenital cardiac defects. Surgery for mitral stenosis is becoming more common every day. The relatively low mortality rate and the high percentage of good results makes it advisable for us to strongly consider this procedure in our cases of rheumatic heart disease with mitrol stenosis especially those in an early stage with progressive cardio-pulmonary dysfunction.

With the increasing number of digitales preparations on the market today, it would be well to repeat the following advice: choose a short acting and long acting digitalis preparation, learn all you can about those two, use them, and stick with them. I would like to mention gitalin, a digitalis preparation which has been known for a long time, but only recently has it been revived by Batterman and his associates. Apparently, its advantages appear to be its more ideal excretion rate. It is excreted slower than digoxin and lantacide C but faster than digitalis leaf and digitoxin. It is reported to be especially useful in those cases of heart failure refractory to and no longer responding to ordinary treatment methods.[5]

Brief comment should be made about diuritics in the treatment of heart failure. Morphine is a time honored drug and an excellent one in mercurial diuresis. Development of the relatively painless subcutaneous diuretics such as thiomerin has greatly facilitated the care of certain cases since these drugs may be administered to the patient by himself or some member of the family. A new oral diuretic, neohydrin, has met with good results in maintaining dry weight incardiacs after the edema has been initially treated with parenterol diuretics. This is usually accomplished with one tablet daily. The use of the cation exchange resins has received considerable study the past year or two. This therapy in usual dosage permits less frequent mercurial injections by eliminating 2-4gms of sodium daily through the gastrointestinal tract. Enthusiasm, however, is rapidly decreasing. It is now felt that these drugs should not be used unless close observation is possible with frequent serum electrolyte determinations. The presence of kidney disease with decreased function necessitates extreme caution.[6]

With the widespread and vigorous use of the various diuretics, more and more is being written about the electrolyte disturbances which may result. The low salt syndrome or other electrolyte imbalance should be suspected when the urinary volume is depressed, is not increased by diuretics, and the patient experiences one or more of the following symptoms: weakness, drowsiness, headache, loss of appetite, thirst, nausea, vomiting, muscle or abdominal cramps, and a gain of weight. These manifestations may be due to an excessive loss of na, cl, ca or potassium. When refractoriness to mercurial diuretics developes, it is best to stop them until electrolyte studies are made and any disturbance corrected. If saline is to be used, a 5% solution must be given, since normal saline would merely increase the edema without effectively elevating the lowered electrolyte levels. However, this must be done slowly with the patient under constant observation for respiratory distress. Because of the frequently associated potassium deficit, potassium citrate or chloride may be given orally in doses or 2-3gms daily.[7]

An ingenious method for combatting acute pulmonary edema is now available. Investigators have shown that ethel alcohol is an excellent antifoaming agent and by having the patient inhale alcohol vaporized by oxygen, marked improvement in the pulmonary edema may be noted.[8] The technique is as follows: Nasal O_2 is started slowly at a rate of 2-3 liters per minute and gradually increased to 7-10 liters per minute. 95% ethel alcohol is used in the ordinary humidifier instead of water. If started slowly it is usually well tolerated and may be continued for several hours if necessary. If a mask is used, 30-40% ethel alcohol is used instead.

The place of anticoagulant therapy in cardiovascular disease is still unsettled. The routine use of these drugs in myocardial infarction is still being argued.

There are those who argue they should be used only in the presence of certain unfavorable signs such as persistent shock and pain, congestive failure and arrythmias.[9] Others feel that many attacks of coronary thrombosis can be predicted a week or so ahead by certain premonitory signs and feel that the anticoagulants should be started promptly. One thing is for sure; they should never be given without reliable lab. control of the prothrombin time. Tromexan, a new anticoagulant offers little real advantage over dicoumarol. It is excreted more rapidly and therefore, therapeutic levels are more difficult to maintain and may require two prothrombin determinations during the day, instead of one.

Perhaps the subject of atherosclerosis and its prevention would best be left out of this discus-

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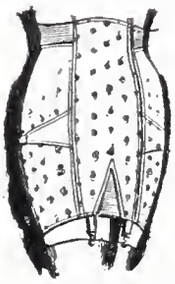

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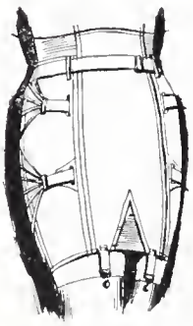

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Dunaway, E. L. ... Conway
Duty, Edward R. ... Conway
Fraser, N. E. ... Conway
Gordy, L. F., Jr. ... Conway
Hughes, A. A. ... Conway
Hunt, E. C. ... Conway
Johnston, W. W. ... Martinsburg, W. Va.
Lieblong, Keller ... Conway
McCollum, I. N. ... Conway
Sneed, John W. ... Conway
Taylor, R. L. ... Conway

FRANKLIN COUNTY

Bollinger, W. H. ... Charleston
Brothers, Duane ... Ozark
Gibbons, D. L. ... U. S. Army
Gibbons, W. H. ... Ozark
Long, C. C. ... Ozark
Pillstrom, E. W. ... Ozark

GARLAND COUNTY

Adams, Frank M. ... Hot Springs
Atkinson, R. H. ... Hot Springs
Black, T. N. ... Hot Springs
Bohnen, Loren O. ... Hot Springs
*Bollmeier, L. N. ... Hot Springs
Browning, E. R. ... Hot Springs
Burch, N. B. ... Hot Springs
Burton, F. M. ... Hot Springs
Chamberlain, W. W. ... Hot Springs
Chenault, H. Clay ... U. S. Army
Chesnutt, J. H. ... Hot Springs
Clardy, E. K. ... Hot Springs
Coffey, G. C. ... Hot Springs
*Connell, W. H. ... Hot Springs
Daniel, R. L. ... Hot Springs

Dembinski, T. H. ..... Hot Springs
Dodson, John, Jr. ..... Hot Springs
Durham, T. M., Jr. ..... Hot Springs
*Ellsworth, E. H. ..... Hot Springs
Fletcher, Geo. B. ..... Hot Springs
Fotioo, Geo. J. ..... Hot Springs
Garratt, C. E. ..... Hot Springs
Goetze, Dorothy ..... Hot Springs
Goodrum, W. A. ..... Hot Springs
Gray, W. E. ..... Hot Springs
Gutman, Emil ..... Meridian, Miss.
Harris, Chas. P. ..... Hot Springs
Hebert, Gaston A. ..... Hot Springs
Jackson, H. G. ..... Hot Springs
Jackson, W. W. ..... Hot Springs
Kelly, Gordon ..... Hot Springs
King, Leeman H. ..... Hot Springs
King, O. H. ..... Hot Springs
Klugh, W. G. ..... Hot Springs
Leatherman, J. W. ..... Hot Springs
Lee, D. C. ..... Hot Springs
*Lutterloh, C. H. ..... Hot Springs
McFarland, Louis ..... U. S. Navy
Martin, L. G. ..... Hot Springs
Moss, C. S. ..... Carbon Hill, Ala.
Parkerson, C. W. ..... Hot Springs
Pate, C. N. ..... Hot Springs
Porter, Wm. F. ..... Hot Springs
Power, A. R. ..... Hot Springs
Purdum, E. A. ..... Hot Springs
Reed, L. E. ..... Hot Springs
Rosenzweig, J. L. ..... U. S. Navy
Rowland, Driver ..... Hot Springs
Rowland, J. F. ..... Hot Springs
Scott, Jett O. ..... Hot Springs
Scully, F. J. ..... Hot Springs
Shaw, Ernest I. ..... Hot Springs
Smith, E. M. ..... Hot Springs
Smith, O. A. ..... Hot Springs
Smith, W. K. ..... Hot Springs
Stell, J. S. ..... Hot Springs
Stough, D. B. ..... Hot Springs
Strachan, J. B. ..... Hot Springs
Tarleton, F. S. ..... Hot Springs
Tribble, A. H. ..... Hot Springs
Wade, H. K., Sr. ..... Hot Springs
Wade, H. K., Jr. ..... Hot Springs
Weil, S. D. ..... Hot Springs
Wilkins, J. S. ..... Hot Springs
Woods, Paul H. ..... Hot Springs
Wright, H. K. ..... Hot Springs
Wright, Jack ..... Hot Springs

GRANT COUNTY

Carter, Faber H. ..... Sheridan
Irvin, Jack M. ..... Sheridan
Kelly, Miles F. ..... Sheridan
Kelly, O. R. ..... Sheridan

GREENE-CLAY COUNTY

Andrews, Allie E., Jr. ..... Paragould
Baker, Clark, M. ..... Paragould
Blackwood, J. D. ..... Jonesboro
Clopton, O. H. ..... Rector
*Ellington, W. E. ..... Paragould
Futrell, J. B. ..... Rector
Haley, R. J., Jr. ..... Paragould
Harper, Bland R. ..... Monette
Hiller, J. P. ..... Pollard
Jones, F. H. ..... Piggott
Latimer, N. J. ..... Corning
Maddox, A. H. ..... Paragould
McGuire, J. E. ..... Piggott
McKelvey, Earle ..... Paragould
Purcell, Donald I. ..... Paragould
Reulbach, F. P. ..... Parma, Ohio
Turner, W. E., Sr. ..... Piggott
Turner, W. E., Jr. ..... Piggott
Williams, J. M. ..... Paragould

HEMPSTEAD COUNTY

Branch, J. W. ..... Hope
Crow, Neil E. ..... U. S. Army
Lile, L. M. ..... Hope
Martindale, J. G. ..... Hope
Martindale, Jud ..... Hope
McKenzie, Jim ..... Hope
Robins, W. F. ..... Ozan
Sims, Walter L. ..... Hope
Smith, Adonis ..... Hope
Wright, George H. ..... Hope

HOT SPRING COUNTY

Barrier, W. F. ..... Malvern
Berry, Morgan C. ..... Malvern
Cole, John W. ..... Malvern
Douglass, H. J. ..... Malvern
Ellis, C. Randolph ..... Malvern
Hodges, T. L. ..... Bismarck
Kersh, N. B. ..... Malvern
Means, P. N. ..... Malvern
McCray, E. H. ..... Malvern
McCray, R. V. ..... Malvern
Peeples, R. E. ..... Malvern
Peters, Claude F. ..... Malvern

HOWARD-PIKE COUNTY

Burleson, Joe ..... Antoine
Chamblin, D. W. ..... Nashville
Dildy, E. V., Jr. ..... Nashville
*Duncan, M. D. ..... Murfreesboro
Gould, W. B. ..... Glenwood
Harrison, A. V. ..... Dierks
Holt, H. H. ..... Nashville
Hopkins, Ed G., Jr. ..... U.S.A.F.
Jones, W. J. ..... Glenwood
Toland, Wm. H. ..... Nashville
Waldrop, J. G. ..... Nashville
Ward, Hiram T. ..... Murfreesboro

INDEPENDENCE COUNTY

Bone, O. L. ..... Newark
Brown, H. H. ..... Charlotte
Calaway, R. L. ..... Batesville
Calaway, W. H. ..... Batesville
Churchill, C. A. ..... Batesville
Craig, M. S. ..... Batesville
Evans, L. T. ..... Batesville
Grasse, A. Meryl ..... Calico Rock
Gray, W. Paul ..... Batesville
Hinkle, C. G. ..... Batesville
Jeffery, Paul H. ..... Bethesda
Johnston, O. J. T. ..... Batesville
Jones, W. A. ..... El Paso, Tex.
Ketz, W. J. ..... Batesville
McAdams, V. D. ..... Cord
Monfort, J. J. (Secretary) ..... Batesville
Shannon, Karr, Jr. ..... Melbourne
Taylor, Chas. A. ..... Batesville
Taylor, Chaney W. ..... Batesville
Walker, A. T. ..... Mammoth Springs
Weathers, J. L. ..... Salem
Woods, O. S. ..... Salem
Wyatt, F. Q. ..... Batesville

JACKSON COUNTY

Ashley, John D., Jr. ..... Newport
Baird, H. M. ..... Newport
*Best, A. L. ..... Newport
Harris, M. H. ..... Newport
Harris, M. L. ..... Newport
Jackson, J. F. ..... Newport
*Kimberlin, K. K. ..... Tuckerman
Norris, R. O. ..... Tuckerman
Novak, Edward J. ..... Tuckerman
Stanfield, Wayne ..... Newport
Walker, H. O. ..... Newport
Werner, Dean F. ..... U. S. Navy
Williams, Thos. E. ..... Newport

JEFFERSON COUNTY

Adams, Carl H. ..... U. S. Army
Anderson, C. W. ..... Pine Bluff
Bruce, W. H. ..... Pine Bluff
Burford, T. G. ..... Altheimer
Capel, C. B. ..... Pine Bluff
Capel, H. T. ..... Pine Bluff
Carruthers, C. K. ..... Pine Bluff
Causey, H. A. ..... Pine Bluff
Clark, O. W. ..... Pine Bluff
Cunningham, T. J., Sr. ..... Pine Bluff
Cunningham, T. J., Jr. ..... Pine Bluff
Dickins, R. D. ..... Pine Bluff
Fergusson, J. P. ..... Pine Bluff
Fowler, Arthur, Sr. ..... Humphrey
Fowler, Arthur, Jr. ..... Pine Bluff
Fowler, H. D. ..... Humphrey
Glasscock, R. E. ..... Pine Bluff
Hames, Fred Wm. ..... Pine Bluff
Hart, James C., Jr. ..... Pine Bluff
Higginbotham, C. J. ..... Pine Bluff
Hundley, Louis K. ..... Pine Bluff
Hutchison, E. L. ..... Pine Bluff
Lowe, W. T. ..... Pine Bluff
Luck, B. D., Jr. ..... Pine Bluff
Maynard, R. E. ..... Pine Bluff
McAllister, J. T., Jr. ..... Pine Bluff
McMullen, E. C. ..... Pine Bluff
Monroe, S. C. ..... Pine Bluff
Morris, H. J. ..... Pine Bluff
Nixon, Wm. R. ..... Pine Bluff
Payne, Virgil ..... Pine Bluff
Raney, O. C. ..... Pine Bluff
Reed, Enoch F., Jr. ..... Pine Bluff
Reid, Chas. W. ..... Pine Bluff
Rhyne, James T. ..... Pine Bluff
Riley, Wm. K. ..... Pine Bluff
Robinette, J. S. ..... Pine Bluff
Russell, A. R. ..... Pine Bluff
Shelton, M. A. ..... Altheimer
Simmons, C. R. ..... Pine Bluff
Spillyards, J. S. ..... Pine Bluff
Stern, Howard S. ..... Pine Bluff
Talbot, Geo. B. ..... Pine Bluff
Walker, John K. ..... Pine Bluff
Wilkins, W. J., Jr. ..... Pine Bluff
Wooley, R. R. ..... Pine Bluff

JOHNSON COUNTY

Floyd, John ..... Oark
Graves, S. M. ..... Clarksville
Hardgrave, Geo. L. ..... Clarksville
Hunt, Earle H. ..... Clarksville
Kolb, J. M. ..... Clarksville
Manley, R. H. ..... Clarksville
Scarborough, Wm. R. ..... Clarksville
Shrigley, Guy P., Jr. ..... Clarksville
Siegel, G. R. ..... Clarksville

LAFAYETTE COUNTY

Armstrong, R. L. ..... Lewisville
Harrison, Robert H. ..... Lewisville
Lee, Willie J. ..... Stamps
McKnight, J. F. ..... Bradley
Rosendale, Albert ..... Bradley

LAWRENCE COUNTY

Cruse, E. J. ..... Black Rock
Elders, J. B. ..... Walnut Ridge
Faircloth, R. S. ..... Walnut Ridge
Joseph, Ralph ..... Walnut Ridge
Tibbels, Chas. D. ..... Black Rock
Townsend, C. C. ..... Walnut Ridge

LEE COUNTY

Bogart, H. D. ..... Marianna
Chaffin, C. W. ..... Moro
Dozier, Floyd ..... Marianna
Hays, Wm. C., Jr. ..... Marianna
McClendon, Mac ..... Marianna

LINCOLN COUNTY

*Bailey, B. L. ..... Star City
Dale, Robert A. ..... Star City
Dixon, C. W. ..... Gould
Gardner, B. M. ..... Star City
*Wood, G. C. ..... Grady

LITTLE RIVER COUNTY

Daubs, Wm. H. ..... Foreman
Peacock, Norman W. ..... Ashdown
Shelton, J. G., Jr. ..... Ashdown

LOGAN COUNTY

Dickey, A. B. ..... State Sanatorium
Hederick, A. R. ..... Booneville
Henry, C. A. ..... State Sanatorium
Jewell, I. H. ..... Paris
McConnell, S. P. ..... Booneville
Riley, J. D. ..... State Sanatorium
Smith, Chas. McD. ..... Paris
Smith, James T. ..... Paris
Smith, John F. ..... Paris
Thicksten, Jack N. ..... Booneville

LONOKE COUNTY

Beaty, S. S. ..... England
Brewer, John F. ..... No. Little Rock
Brown, H. L. ..... Little Rock
Corn, F. A. ..... Lonoke
Holmes, Byron E. ..... Lonoke
Kelly, R. M. ..... Lonoke
McEntire, H. E. ..... England
Martin, J. A. ..... Cabot
Southall, S. A. ..... Lonoke
Washburn, C. Yulon ..... Cabot

MADISON COUNTY

Beeby, Chas. B. ..... Huntsville
Youngblood, Fred ..... Huntsville

MILLER COUNTY

Baskett, Roy F. ..... Texarkana
Bayer, Dina Irene ..... Texarkana
Burnett, J. W. ..... Texarkana
Calhoun, John G., Jr. ..... Texarkana
Carney, H. M. ..... Texarkana
Collom, S. Allen ..... Texarkana
Daniel, N. B. ..... Texarkana
Ellison, E. T. ..... Texarkana
Goesl, Andrew ..... Texarkana
Good, L. P. ..... Texarkana
Grover, Harle B. ..... Texarkana
Harrell, W. B., Jr. ..... Texarkana
Jones, John W. ..... Texarkana
Kemp, K. H. ..... Texarkana
Kirkpatrick, R. R. ..... Texarkana
Kitrell, J. B. ..... Texarkana
*Kosminsky, L. J. ..... Texarkana
Lanier, L. H. ..... Texarkana
Laws, J. K. ..... Texarkana
Little, A. A. ..... Texarkana
Meredith, Wm. R. ..... Hairsfield, Ala.
Middleton, B. C. ..... Texarkana
Murry, H. E. ..... Texarkana
Murry, J. W. ..... Texarkana
Parson, G. W. ..... Texarkana
Pickett, R. W. ..... Texarkana
Rushing, Louis U. ..... Texarkana
Smith, W. D. ..... Texarkana
Stanton, Wm. B. ..... Texarkana
Tate, J. B. ..... Texarkana
Teasley, Gerald H. ..... Texarkana
Thompson, C. A. ..... Texarkana
Thornton, W. D. ..... Texarkana
Wachob, Tom W., Jr. ..... Texarkana
Wilhelm, Frieda ..... Texarkana
Williams, J. F. ..... Texarkana
Yarbrough, Chas. P. ..... Texarkana

MISSISSIPPI COUNTY

Atkinson, G. S. ..... Blytheville
Beasley, J. E. ..... Blytheville
Blodgett, Don H. ..... Osceola
Brownson, J. F. ..... Blytheville
Cheshire, Marvin H. ..... Luxora
Danner, J. J. ..... Armorel
Elliott, John ..... Blytheville
Ellis, N. B. ..... Wilson
Fairley, Eldon ..... Wilson
Harwell, C. M. ..... Osceola
Hollingsworth, G. F. ..... Dyess
Hubener, L. L. ..... Blytheville
Hubener, Louis F. ..... Baltimore, Md.
Husband, F. L. ..... Blytheville
Johnson, I. R. ..... Blytheville
Johnson, R. L. ..... Blytheville
Massey, L. D. ..... Osceola
Polk, J. T. ..... Keiser
Rainwater, W. T. ..... Blytheville
Ratton, Robt. W. ..... Manila
*Robinson, Finley ..... Blytheville
Rodman, T. N. ..... Leachville
Scott, B. F. III ..... Memphis, Tenn.
Sheddan, W. J. ..... Osceola
Silverblatt, C. W. ..... Osceola

Sims, H. C., Jr. — U. S. Army
Sims, H. C., Sr. — Blytheville
Skaller, M. L. — Blytheville
Utley, F. E., Jr. — Blytheville
Walls, J. M. — Blytheville
Webb, Floyd — Blytheville
Webb, J. J. — Blytheville
Workman, W. W. — Blytheville

MONROE COUNTY

Cazan, Geo M., Jr. — Brinkley
Cook, Robt. T. — Clarendon
Dalton, M. L. — Brinkley
Long, Jere — Brinkley
McKnight, C. H. — Brinkley
McKnight, E. D. — Brinkley
Pupsta, B. F. — Clarendon
Stone, H. E., Jr. — Holly Grove
Walker, W. L. — Brinkley
Williams, J. P., Jr. — Brinkley

NEVADA COUNTY

Arnold, C. P. — Prescott
*Buchanan, A. S. — Prescott
Cox, J. E. — Rosston
Hairston, G. G. — Prescott
Harrell, L. J. — Prescott
Hesterly, C. A. — Prescott
Hesterly, J. B. — Prescott
Hirst, O. G. — Prescott
Pool, W. B. H. — Bodcaw

OUACHITA COUNTY

Brian, Bruce — Cullendale
Byrd, E. J. — Camden
Dalton, Perry — Camden
Dedman, J. L., Jr. — Camden
Drewery, L. E. — Camden
Dunn, Tom L. — Hampton
Ellis, Wm. Bruce — Stephens
Guthrie, James — Camden
Hawley, James W. — Camden
Hearnsberger, Henry — Stephens
Jameson, J. B. — Camden
McAllister, J. P. — Camden
Magness, W. C. — Branson, Mo.
Meek, Tom J. — Camden
Miller, John H. — Camden
Ozment, L. V. — Camden
Parks, Arthur E. — Fordyce
Partee, N. G. — Camden
Priddy, James S. — Green Forest
Pruitt, W. H. — Camden
Rhine, T. E. — Thornton
Roberts, Warren J. — Fordyce
Robins, R. B. — Camden
Robins, R. R. — Camden
Rushing, J. L. — Chidester
Thompson, John P. — Bearden

PHILLIPS COUNTY

Barrow, John H. — West Helena
Bell, L. J. Patrick — Helena
Berger, Alfred H. — Helena
Butts, J. W. — Helena
Butterick, Orin D. — U. S. Army
Capes, Bernard — West Helena
Chrestman, R. L., Jr. — U. S. Army
Connolly, W. B. — Helena
Cox, A. E. — Helena
Ellis, W. A., Jr. — Helena
Fink, Montague — Helena
Gibbons, G. E. — Marvell
Jones, Lynwood B. — Helena
Kultgen, Edward — Elaine
McCarty, C. P. — Helena
*Nicholls, J. W. — Helena
Oldham, H. B. — West Helena
Paine, W. T. — Elaine
Storm, Geo R. — West Helena

POLK COUNTY

Campbell, C. A. — Mena
Hefner, David — Mena
Lee, F. A. — Vandervoort
Norwood, Frank A. — Mena
Redman, Pierre — Mena
Rogers, Henry N. — Mena
Stewart, G. T. — Mt. Ida
Williams, L. K. — Mena
Wood, J. P. — Mena

POPE-YELL COUNTY

Cale, Walter — Atkins
Draeger, Louis A. — Danville
Gardner, Ellis — Russellville
Gardner, L. — Russellville
Grace, Kent — U.S.A.F.
Harris, Walter P. — Danville
Henry, J. A. — Russellville
Hickey, T. H. — Atkins
Hood, Robert — Russellville
King, Ernest — Russellville
Lane, Walter H., Jr. — Dover
Linton, A. C. — Hector
Millard, Roy I. — Russellville
Mobley, Max J. — Russellville
*Smith, R. L. — Russellville
Stanford, J. M. — Russellville
Tate, A. B. — Russellville
Teeter, Brooks R. — Russellville
Underwood, E. O. — Waveland
Webb, Lewis A. — Dardanelle
Young, W. O., Jr. — Russellville

PRAIRIE COUNTY

Crockett, W. H. — Benton
Gilliam, J. C. — Des Arc
Jones, R. Luby — Hazen
Mathews, Travis — Hazen
Parker, W. M. — DeValls Bluff
Schumann, G. M. — Des Arc

PULASKI COUNTY

Adametz, J. H. — No. Little Rock
Aday, J. Leo — Little Rock
Agar, Drew — Little Rock
Alford, Dale — Little Rock
Allen, H. R. — Little Rock
Almaden, P. J. — Little Rock
Armstrong, H. M. — Little Rock
Atkinson, Shelby — No. Little Rock
Ault, Chas. C. — No. Little Rock
Autry, Daniel H. — Little Rock
Autry, Paul G. — Little Rock
Baber, John C., Jr. — Little Rock
Bailey, Chas. W. — Greenwood
Bailey, Howard Ashley, Jr. — Little Rock
Banks, Jeff — Little Rock
Barker, James — Little Rock
Barrier, L. F. — Little Rock
Beard, Owen W. — Little Rock
Beck, R. W. — Little Rock
Bennett, B. A. — Little Rock
Bizzell, Ross — Little Rock
Black, Henry T. — Little Rock
Black, M. W. — Little Rock
Blakely, R. M. — Little Rock
Bradley, Wm. Chas. — Benton
Briggs, Barney P. — Little Rock
Brizzolara, A. J. — Little Rock
Broach, Rolland F. — No. Little Rock
Brown, Martha M. — Little Rock
Brown, T. Duel — Little Rock
Brown, Willis E. — Little Rock
Browne, Hugh A. — Alexander
Bryant, Robert H. — Little Rock
Buchanan, Francis R. — Little Rock
Buchman, Jos. A. — Little Rock
Burgess, T. E. — Little Rock
Byrd, Lucas M., Jr. — Little Rock
Calcote, Robert A. — Little Rock
*Calcote, R. J. — Little Rock
Caldwell, Robert — Little Rock
Calhoun, Jos. D. — Little Rock
Carnahan, Robt. G. — Little Rock
Carroll, Thomas Wm. — Little Rock
Carruthers, F. Walter — Little Rock
Cavener, Jessie Lee — Little Rock
Cazort, Alan G. — Little Rock
Chappell, Ewin S. — No. Little Rock
Cheairs, D. B. — Little Rock
Chesnutt, C. R., Sr. — Little Rock
Chesnutt, C. R., Jr. — Little Rock
Choate, H. L. — Little Rock
Christian, John Douglas — Little Rock
Church, B. L. — No. Little Rock
Clark, A. C. — Little Rock
Clark, William A. — Little Rock
Cohen, Louis A. — Little Rock
Compton, J. N. — Little Rock
Cook, R. C. — Little Rock
Coon, A. B. — Little Rock
Cooper, Wm. G. — Little Rock
Cope, Ellis P. — Little Rock
Cosgrove, K. W. — Little Rock
Craig, M. S., Jr. — Little Rock
Crawford, Jim B. — Little Rock
Crawley, Eugene H. — Little Rock
Cross, J. B. — Little Rock
Cull, S. T. W. — Little Rock
Cullen, Phillip T. — Little Rock
Cummins, Bryce — Little Rock
Curtis, A. C. — Little Rock
Darby, Wm. J. — Nashville, Tenn.
Darnall, R. F. — Alexander
Dean, Gilbert — Little Rock
Dildy, Hal — U.S.A.F.
Dillaha, Calvin J. — Little Rock
Dishongh, Howard A. — Little Rock
Dodd, Katharine — Little Rock
Dodge, Eva F. — Little Rock
Doherty, James E. — Little Rock
Donaldson, J. K. — Little Rock
Downs, John — Little Rock
Easley, Edgar J. — Little Rock
Eliot, Johan W. — Little Rock
Eubanks, R. M. — Little Rock
Farris, Guy R. — Little Rock
Fein, Norman N. — Little Rock
Fletcher, Elizabeth D. — Little Rock
Forman, Frank S. — Little Rock
Foster, Julian L. — Little Rock
Fulmer, Doyle W. — Little Rock
Fulmer, H. Ray — Little Rock
Fulmer, John M. — Little Rock
Fulmer, Paul M. — Little Rock
Fulmer, S. C. — Little Rock
Fulton, William L. — No. Little Rock
Gann, Dewell, Jr. — Benton
Gates, Stanley M. — Little Rock
Gay, Ellery C. — Little Rock
Gibbins, Jack — Little Rock
Gillespie, E. C. — Little Rock
Gordon, Vida — Little Rock
Goss, Joseph J. — Benton
Grant, Walter J. — Little Rock
Gray, Edwin F. — Little Rock
Gray, Fred J. — Little Rock
Gray, Oscar, Jr. — U. S. Army
Gray, Herschel F. — Little Rock
Grayson, W. B. — Little Rock
Greutter, John E., Jr. — Little Rock
Growdon, James H. — Little Rock
Hall, Alastair D. — Little Rock
Hamilton, W. M. — Little Rock
Hanchey, C. C. — No. Little Rock
Hara, Masauki — Little Rock
Hardeman, Daniel R. — Little Rock
Hardin, Joe H. — Little Rock
Harrel, J. A., Jr. — Little Rock
Hayes, Candler K. — Little Rock
Hayes, James McD. — Little Rock
Hayes, John H. — Little Rock
Headstream, James W. — Little Rock
Henry, Chas. R. — Little Rock
Henry, John F., Jr. — U. S. Navy
Henry, Robert L., Jr. — Little Rock
Herron, John T. — Little Rock
Hickey, Joseph — Little Rock
Higgins, Homer A. — Little Rock
Hill, Harlan H. — Little Rock
Hipp, Harold R. — Little Rock
Hollenberg, Henry G. — Little Rock
Hollis, Nicholas T. — Little Rock
Holmes, Glen McK. — Little Rock
Holmes, Harlan C. — Little Rock
Holt, L. Gordon — Little Rock
Honeycutt, Thomas D. — Little Rock
Hooker, Lyle T. — U.S.A.F.
Hoover, Paul W. — Little Rock
Hundley, John M. — Little Rock
Hyatt, D. T. — Little Rock
Ish, G. W. S., Sr. — Little Rock
Jernigan, James P. — Little Rock
Johnson, A. L. — Little Rock
Johnson, Glen H. — Little Rock
Johnston, T. G. — Little Rock
Jones, Erner — Little Rock
Jones, H. Fay H. — Little Rock
Jones, James E. — Little Rock
Jones, Kenneth G. — Little Rock
Jones, Robert D. — Little Rock
Judd, O. K. — Little Rock
Junkin, Ruth — Little Rock
Junkin, S. P. — Little Rock
Kahn, Alfred, Jr. — Little Rock
Keeling, Jack H. — Little Rock
Kennedy, Charles H. — No. Little Rock
Kilbury, M. J., Sr. — Little Rock
Kilbury, Merlin, Jr. — Little Rock
Kirby, Jesse M. — Little Rock
Kolb, A. C. — Little Rock
Kolb, Agnes C. — Little Rock
Kolb, B. T. — Little Rock
Kolb, Wm. Payton — U. S. Army
Kumpuris, Frank G. — Little Rock
Laman, John E. — No. Little Rock
Lamb, W. A. — Little Rock
Lambert, Henry L., Jr. — Little Rock
Laurens, John — Little Rock
Law, Ralph A. — Little Rock
Lawson, Mason G. — Little Rock
Levy, Jerome S. — Little Rock
Logue, Richard M. — Little Rock
Longstreth, Alvin E. — Little Rock
Lyons, Virgle E. — Little Rock
Mahoney, Paul L. — Little Rock
Mallory, G. L. — Little Rock
McCaskill, M. R. — U. S. Army
McClain, Monroe D. — Little Rock
McGinnis, Robert S. — Little Rock
McLochlin, Ralph E. — Little Rock
McMillin, Lamar — Little Rock
McRae, W. M. — Little Rock
Means, Ben Dallas — Little Rock
Melson, O. C. — Little Rock
Meschan, Isadore — Little Rock
Miles, Hollis C. — Chattanooga, Tenn.
Miller, Harold N. — Little Rock
Milner, Elsey L. — Brentwood, Mo.
Morgan, Verne E. — Little Rock
Morris, Woodbridge E. — Little Rock
Murphy, James E., Jr. — Little Rock
Murphy, Pat — Pasadena, Calif.
Murphy, Randolph — Little Rock
Nettleship, Anderson — Little Rock
Newbill, James — Little Rock
Nicholson, H. C. — Little Rock
Nisbett, James M. — Little Rock
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Norton, Joe — Little Rock
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Oates, Gordon P. — U. S. Navy
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O'Neal, Walter H. — Little Rock
Orr, Wm. S., Jr. — Little Rock
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Pringos, Andrew A. ..... Little Rock
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Reagan, L. D. ..... Little Rock
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Regnier, George G. ..... Little Rock
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Rhinehart, D. A. ..... Little Rock
Rhinehart, Wm. J. ..... Little Rock
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Riegler, N. W., Jr. ..... Little Rock
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Rothert, Frances C. ..... Little Rock
Rowen, Ralph E. ..... Little Rock
Sadler, W. L. ..... Little Rock
Samuel, John M. ..... Little Rock
Sanderlin, Joe H. ..... Little Rock
Savin, Jessie E. ..... Elmhurst, N. Y.
Saxon, R. L. ..... Little Rock
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Schneider, Mildred F. ..... No. Little Rock
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Scruggs, Joe B., Jr. ..... Little Rock
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Shuffield, James W. ..... Little Rock
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Smith, John Wm. ..... Little Rock
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Smith, W. Myers ..... Little Rock
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Sparks, Albert R. ..... Little Rock
Spitzberg, Irving J. ..... Little Rock
Stathakis, John ..... No. Little Rock
Steinkamp, G. R. ..... U. S. Army
Stevenson, Roger ..... Little Rock
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Strauss, A. W., Sr. ..... Little Rock
Strauss, A. W., Jr. ..... Little Rock
Strauss, H. B. ..... Little Rock
Summers, J. A. ..... Little Rock
Sutherland, C. G. ..... Little Rock
Talley, Robert W. ..... Little Rock
Taylor, James S. ..... Little Rock
Thomas, P. E. ..... Little Rock
Thomas, Peter O. ..... Little Rock
Thompson, Dola S. ..... Little Rock
Thompson, Ewell I. ..... Little Rock
Thompson, George D. ..... Little Rock
Thompson, L. L. ..... Little Rock
Thompson, Samuel B. ..... Little Rock
Thornton, J. G. ..... Little Rock
Toombs, Vernon L. ..... Little Rock
Turnbow, Robert L. ..... El Dorado
Turner, James H. ..... Little Rock
Wallace, Deane ..... Little Rock
Wallis, Charles ..... Little Rock
Warden, J. R. ..... Little Rock
Warford, W. R. ..... No. Little Rock
Washburn, A. M. ..... Little Rock
Wassell, John R. ..... Little Rock
Watkins, Chas. J. ..... Little Rock
Watkins, John G., Jr. ..... U. S. Navy
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Weny, N. F. ..... Little Rock
White, Oba B. ..... Little Rock
Wickard, Chas. P. ..... Little Rock
Wilbur, E. Lloyd ..... Little Rock
Wilkes, Elbert H. ..... Little Rock
Woods, Jesse B. ..... Little Rock
Wortham, James T. ..... Little Rock
Zell, Lawrence M. ..... Little Rock

RANDOLPH COUNTY

Baltz, M. A. ..... Pocahontas
Brown, J. W. ..... Pocahontas
Case, J. W., Jr. ..... Pocahontas
DeClerk, Thomas B. ..... Pocahontas
Hamil, W. E. ..... Pocahontas
Mitchell, George E. ..... Imboden
Ryburn, J. W. ..... Pocahontas
Scott, Wm. W. ..... Pocahontas
Smith, N. K. ..... Pocahontas
Smith, R. O. ..... Biggers

SALINE COUNTY

Ashby, John W. ..... Benton
Bell, William ..... Benton
Blakely, M. M. ..... Benton
Buffington, T. E. ..... Benton
Jones, Curtis, Sr. ..... Benton
Jones, Curtis, Jr. ..... Benton
Parker, Joseph M. ..... Little Rock
Setzler, R. K. ..... Bauxite
Swinyar, Theodore C. ..... Benton
Walton, Chas. R. ..... Montgomery, Ala.

SCOTT COUNTY

Brown, E. J. ..... Mansfield
Duncan, B. W. ..... Waldron
Seamans, John ..... Mansfield
Wright, Harold B. ..... Waldron

SEARCY COUNTY

Cotton, J. O. ..... Leslie
Daniel, S. G. ..... Marshall
Evans, P. L. ..... Marshall
Hall, H. J. ..... Clinton
Hall, John A. ..... Clinton
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Amis, J. W. ..... Fort Smith
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Boulden, Cecil, Jr. ..... Fort Smith
Brooksher, W. R. ..... Fort Smith
Chamberlain, C. T. ..... Fort Smith
Clarke, Albert S. J. ..... U. S. Army
Crigler, R. E. ..... Fort Smith
Darnall, Harley C. ..... Fort Smith
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Downs, Ralph A. ..... Fort Smith
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Foltz, T. P. ..... Fort Smith
Foster, M. E. ..... Fort Smith
Goldstein, D. W. ..... Fort Smith
Gross, Worth M. ..... Fort Smith
Hall, C. W. ..... Greenwood
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Henry, Louise M. ..... Fort Smith
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Hoge, M. B. ..... Fort Smith
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*Jones, I. F. ..... Fort Smith
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Thompson, J. B. ..... Fort Smith
Thompson, J. K. ..... Fort Smith
Thompson, Robert J. ..... Fort Smith
Waddell, Pearl B. ..... Fort Smith
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Wilson, C. L. ..... Fort Smith
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Woods, Wm. M. ..... Huntington

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Callahan, Leroy ..... DeQueen
Dickinson, R. C. (President) ..... Horatio
Dickinson, Richard B. ..... DeQueen
Dickinson, Rodger C. ..... DeQueen
Hendricks, J. S. ..... DeQueen
Jones, Chas. N. ..... U. S. Army
Kimball, G. L. ..... DeQueen
Norwood, M. L. ..... Lockesburg
Selvester, R. H. ..... DeQueen
Switzer, Fred D. ..... McAlester, Okla.

UNION COUNTY

Burton, George C. ..... El Dorado
Cathey, A. D. ..... El Dorado
Clark, J. F. ..... El Dorado
Clowney, A. R. ..... El Dorado
Cooper, James O. ..... El Dorado
Cullins, J. G. ..... Wadsworth, Kan.
Cyphers, Chas. D. ..... El Dorado
Doren, Austin H. ..... Smackover
Fincher, L. G. ..... El Dorado
Fitch, L. E. ..... El Dorado
Handley, W. H., Jr. ..... El Dorado
Harper, J. W. ..... El Dorado
Henley, Paul G. ..... Philadelphia, Pa.
Irby, F. L. ..... El Dorado
Jameson, Sam ..... El Dorado
Kennedy, C. E. ..... Smackover
Kitchens, D. K. ..... New York, N. Y.
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Mayfield, H. J. ..... El Dorado
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McKinney, J. S. ..... El Dorado
*Mitchell, J. G. ..... El Dorado
Moore, B. L. ..... El Dorado
Moseley, J. H. ..... Oak Grove, La.
Munn, E. J. ..... El Dorado
Murphy, G. D., Sr. ..... El Dorado
Murphy, G. D., Jr. ..... El Dorado
Murphy, H. A. ..... El Dorado
Newton, W. L. ..... Smackover
Pinson, J. H., Jr. ..... El Dorado
Price, Troy M. ..... Strong
Rainwater, W. S. ..... U. S. Army
Riley, W. S. ..... El Dorado
Sheppard, J. K. ..... El Dorado
Sheppard, J. M. ..... El Dorado
Slaughter, J. W. ..... El Dorado
Thibault, Frank ..... El Dorado
Trinca, P. J. ..... Ionia, Mich.
Wharton, J. B., Sr. ..... El Dorado
Wharton, J. B., Jr. ..... El Dorado
White, D. E. ..... El Dorado
Yocum, David M., Jr. ..... El Dorado

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Brown, Spencer H. ..... Fayetteville
Butler, George H. ..... Fayetteville
Butt, W. J. ..... Fayetteville
Clark, Le Mon ..... Fayetteville
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Dorman, J. W. ..... Springdale
Ellis, E. F. ..... Fayetteville
Fowler, W. A. ..... Fayetteville
Gilbert, A. A. ..... Fayetteville
Hall, Joe Bill ..... U. S. Army
Harrison, A. J. ..... Springdale
Hathcock, Alfred H. ..... Fayetteville
Hathcock, Preston L. ..... Fayetteville
Hathcock, P. Leo ..... Fayetteville
Huntington, R. H. ..... Fayetteville
Kaylor, Coy C. ..... Fayetteville
Leming, H. E. ..... Fayetteville
Lesh, Ruth Ellis ..... Fayetteville
Lesh, V. O. ..... Fayetteville
Mashburn, James D. ..... Fayetteville
McAllister, Max F. ..... Fayetteville
Miller, R. W. ..... Fayetteville
Mock, W. H. ..... Prairie Grove
Ogden, Fred W. ..... Fayetteville
Richardson, Fount ..... Fayetteville
Riggall, Cecil ..... Spokane, Wash.
Riggall, Ronald ..... Prairie Grove
Sacks, Wilma C. ..... Fayetteville
Siegel, L. H. ..... Fayetteville
Sisco, Friedman ..... Springdale
Stocker, Wm. J. ..... Fayetteville
Weddington, R. E. ..... Fayetteville
Wheat, Ed ..... Springdale
Wozencraft, W. L. ..... Fayetteville

WHITE COUNTY

Abington, E. H. ..... Beebe
Adair, T. L. ..... Bald Knob
Allbright, S. J. ..... Searcy
Barnett, J. C. ..... Heber Springs
Brown, Robert ..... U. S. Army
Davis, Wm. L. ..... Searcy
Dodd, Wm. Carroll ..... Bald Knob
Dunklin, A. J. ..... Searcy
Edwards, Hugh R. ..... Searcy
Felts, W. R., Sr. ..... Judsonia
Felts, W. R., Jr. ..... Washington, D. C.
Formby, Thomas ..... Searcy
Hawkins, M. C., Jr. ..... Searcy
Hudgins, A. H. ..... Searcy
Hudgins, P. T. ..... Searcy
Kinley, James D. ..... Beebe
*Peeler, C. M. ..... Pangburn
Raney, Troy ..... Heber Springs
Rodgers, P. R. ..... Searcy
Short, Harold ..... Beebe
Sloan, D. W. ..... Beebe
Sloan, J. R. ..... Garner
Smith, B. C. ..... Bradford
Spain, A. L. ..... Letona

WOODRUFF COUNTY

Brewer, E. F. ..... Augusta
Dungan, C. E. ..... Augusta
Evans, R. H. ..... Chatfield
Maguire, F. C., Sr. ..... Augusta
Maguire, F. C., Jr. ..... Augusta
Morris, J. W. ..... McCrory
Napper, George S. ..... U. S. Army
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sion. Although new developments are plentiful, little can be said as to their truth. However, since many practictioners are being prodded into using special diets and lipotropic agents for the prevention of this condition, a few comments may well be in order. It is generally agreed that the cholesterol level in the serum may be lowered only by a restriction in the fat intake as well as the cholesterol intake. Whether this lowered cholesterol level prevents arteriosclerosis in man has not been proved, although this seems to be true in certain animals. Unfortunately, a low fat, low cholesterol diet is highly unpalatable and most workers find that too few patients are willing to stick with such a diet. There is no general agreement at present that choline and inositol have any specific effect on atherosclerosis or the serum cholesterol.[10] An encouraging report on the use of heparin in preventing angina and coronary insufficiency has come forth this year, but an article in a recent issue of the A. M. A. Journal did not support these findings.

Despite the many excellent investigations, definite answers to these problems must wait for many more well controlled studies. At present, it would seem best to try and place your coronary cases on a low fat, low cholesterol diet without the use of the lipotropic agents.

Many reports in the recent literature have been devoted to newer developments in the treatment of hypertension. With the development of the new ganglionic blocking drugs, lumbo-dorsal sympathectomy is being gradually pushed into the background. It still remains a valuable procedure in certain cases and as Dr. Page has pointed out: If we could find a means of detecting the 10% of patients who will respond dramatically and persistently to the operation, it would be a great day for both patients and surgeons.[11] Results from adrenalectomy for hypertension are too sparse at present to evaluate this procedure.

You are all familiar with hexamethonium by now. This is a ganglionic blocking drug which acts on the sympathetic as well as the parasympathetic ganglia, and causes a postural hypotension. I mention it only to warn those who believe that it is a sure cure for hypertension and a simple one to use. It is a dangerous drug and most people condemn its routine use. Taken by mouth, its absorption is irregular and tolerance more often developes than not and requires frequent dosage adjustment. A variety of serious side effects may develop, the most disturbing one being gastrointestinal upsets which may result in a severe and disabling paralytic ileus.

Apresoline, though not as potent a hypotensive agent, is probably the best of the two drugs to use. It is reported that approximately 50-60% of patients will respond somewhat favorably to this drug. About 70% of these will experience transient unpleasant side effects. These can be minimized by starting with a small dosage of 10 to 12-5mgm four times a day and gradually increasing this to 200mgm four times a day. Concomitant use of antihistaminics, analgesics and sedative may also decrease the unpleasant side effects.

Other workers have reported favorable results from the use of various combinations of these drugs. Wilkins and his group have reported good results from using combinations of apresoline, veriloid and rauwolfia serpentina.[12] This latter is an old drug used for years in India in the treatment of hypertension and has recently been introduced into this country. It combines both a sedative and hypotensive effect. Acute hypertensive crises from various causes may be effectively treated by the intravenous use of veriloid and hexamethonium.

Although we have not reached the true answer in hypertensive, rapid progress has been made and we can no longer afford to sit back and assume a passive attitude in treating these cases.

Time does not permit discussion of all the newer events in the field of acth and cortisone therapy. Their use as short term adjunctive treatment in patients with a wide variety of severe diseases unresponsive to other therapy has had extensive trial during the past year. As someone has said, "the moon, thus shot at, seems occasionally to be hit." Perhaps one of the more important developments of the year is in regard to rheumatoid arthritis. That is the increased recognition, before beginning treatment with acth or cortisone, of thoroughly appraising the possible ultimate effects upon the patient when the drugs must be discontinued. A recent study in which 50 cases of rheumatoid arthritis were treated with cortisone, over a two-year period revealed that the degree of benefit derived from this therapy appears to be inversely proportional to the severity of the disease and that 88% developed side reactions, 1/4 of which were serious enough to necessitate discontinuing the drug. The authors concluded that until more information is available concerning their hazardous potentialities, it is probably inadvisable to employ these hormones over long periods in arthritis, other than those who demonstrate progressive disease despite adequate trial of more conservative measures.[13]

Another report emphasizes two troublesome post treatment problems; the first being suppres-

sion of adrenal function for 2 to 6 weeks after stopping therapy and the second is the need of the patient to adjust to living with his disease again. This latter seemed to be particularly difficult for most patients. This study also advised against routine prolonged use of these drugs in rheumatoid arthritis.[14]

It has been demonstrated that when 25-75mgm of hydrocortisone or compound F is injected into a rheumatoid joint, definite regression of the inflammatory process occurs in 60-70% of cases. This improvement may be maintained by repeated injections at anywhere from a few days to one month intervals. Cortisone, used locally, apparently has no such effect. No adverse side effects have been noted, although relapse appears to be inevitable after stopping the drug. Its use in other types of arthritis and related joint disease, awaits further clinical studies.

I would like to offer a word of caution in regard to the use of butazoladiene in the treatment of the various rheumatic conditions for which it is being used. Although results are often as dramatic as with cortisone, the many serious side effects make its routine use inadvisable, unless one is able to carefully and frequently check the patient and his blood and platelet count. More and more cases of agranulocytosis are being reported.

In conclusion, I would like to mention the use of N-allyl-normorphine in the treatment of acute narcotic poisoning from morphine and related compounds. Heretofore, treatment has been largely symptomatic and supportive. This drug is now known to be a specific antidote in narcotic poisoning in man.[15]

It is effective in small doses (10 to 40 mgm i.v.) and the effect is sustained for 2-3 hours. It does not cause the convulsions that may occur after using large doses of coramine or metrozol and has been found helpful in combating the respiratory depression and circulatory collapse that may occur in elderly people after receiving m.s. or demerol.

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★ Editorial ★

REPORT OF THE JOINT COMMITTEE ON CHEST X-RAY*

American College of Chest Physicians and American College of Radiology

Purpose of Joint Committee on Diseases of the Chest

In establishing a Joint Committee on Diseases of the Chest, the purpose of the American College of Chest Physicians and the American College of Radiology is to exchange ideas and to propose guiding principles on the problems involved in routine chest X-rays in hospitals (general, mental, etc.), and mass chest X-ray programs. The committee agrees: that each physician should be encouraged to have a chest X-ray of all of his patients; that every patient admitted to a hospital private or public, should have a routine chest X-ray; and that the follow-up for all suspected lesions seen in chest X-ray surveys should be organized very carefully to assure that the patient comes under medical supervision.

Limits of Survey

Routine chest X-ray examinations should be defined as those examinations of the chest which are conducted to screen persons with abnormal changes of the chest from persons with normal chests. The examinations are screening diagnostic procedures and are not to be considered as clinical diagnostic examinations. The screening method is for the purpose of detecting the presence or absence of a lesion only.

The size of the film which one uses for screening purposes is not of primary importance. The committee believes in principle, however, that when microfilms have been used, a 14x17-inch film is a necessary second step in the screening procedure and the mechanism whereby such is provided in any community shall be determined by the local medical society or the local hospital staff. Survey chest X-rays either in hospitals or in the general population are approved as a screening device if conducted by agencies which utilize well qualified professional and technical personnel and which make sincere efforts to send the positive individuals to qualified local physicians or clinics for proper follow-up.

Interpretation and Report

Interpretation and reporting of medical findings is a medical matter and should bear the signature or identification of the responsible physician.

Method of Reporting

Method of reporting of chest survey studies: This is a local matter and is by prearranged agreement between the employer and the employee in industrial surveys; in other surveys it is in accord with medical ethics, according to local agreement.

Type of Reporting

Type of reporting: The Committee discourages the reporting of suspicious cases as tuberculosis. It believes this to be a clinical diagnosis. The X-ray interpreter should designate the cases that require immediate follow-up as "urgent." The small film X-ray interpretation is merely an impression.

It should be emphasized that the 14x17-inch film is a diagnostic aid and the results derived therefrom are also impressions and not diagnoses. Even the larger film is but one of several examinations necessary in order to establish correct diagnoses.

Double Reading

The committee notes the several publications indicating the extent of false negative and false positive reports resulting from inter- and intra-individual variations in interpretations of chest films. From these it is evident that failures to detect tuberculosis can be reduced by multiple readings, but at the expense of increasing the false positives, unless a check mechanism is employed. The simplest elaboration of multiple reading is the independent interpretation of the film by two physicians with referee conference of the two undertaken in those cases in which they disagree. Only those cases on which both agree in conference should be followed.

While such a procedure may result in the detection of a slightly larger portion of all the abnormal cases, it may not be feasible from an economic or personnel standpoint. Groups responsible for

* Approved by Joint Committee on Chest X-ray; American College of Radiology, American College of Chest Physicians, February 4, 1953.

survey operations are urged by the committee to give consideration to double reading as one of the methods by which survey yields may be increased. Availability of financial resources and qualified professional personnel, as well as the need for other services of relative importance, will be determinates in this decision. The committee, therefore, calls attention to some of the virtues of double reading but does not recommend it unreservedly.

Professional Compensation

The professional cost of performing routine chest examinations in hospitals: The Joint Committee believes the radiologist and/or chest physician should be compensated just as any other physicians practicing his profession. The procedure is time consuming and places a definite responsibility on the radiologist or chest physician. The Committee likewise felt that in this matter the basic principle of payment is by arrangement between the physician and the hospital or agency involved. In the reading of follow-up films there should also be an individual limit to the number of films which should be read in any one day by one physician and which he should not exceed. The compensation, of course, would have to take into consideration, whether the physician makes the film in addition to interpreting it.

Clothing of Patients

Whether or not a screening examination can be conducted with the patient fully clothed: Since the number of lesions overlooked because of clothing (2 per cent) is considerably smaller than the normal variations of interpretation (Chamberlin, etc.) have demonstrated to exist in the reading of photofluorographic films, it is concluded that the examination of clothed persons is as effective a procedure as examination of the undressed persons. Since examination of the fully clothed persons is an easier procedure as compared with the examination of the undressed persons, the Committee agreed that screening examination may be conducted with the patient fully clothed.

Reader's Qualifications

Qualifications of readers in mass chest surveys: It was believed at the present time there was no practical method which could be used to evaluate the qualifications of a particular reader. Studies in this respect are being made at the present time. It is hoped that within a short period of time satisfactory testing methods will be available. The committee therefore agreed to leave this matter open for further discussion.

Protection

The radiation received by all professional, technical and clerical personnel associated with photofluorographic equipment should be continuously monitored by means of film badges or other devices which have been proved to be satisfactory for determining the radiation exposure of personnel.

When an individual receives more than 100 milliroentgens per week, the medical officer in charge of the unit should immediately determine whether the individual has been careless or whether the protective devices of the equipment are at fault.

If the fault lies with the individual, the individual should be informed of the fact and strongly cautioned regarding the dangers of excessive radiation exposure. Failure to regard such warning should be considered as negligence on the part of the individual.

If the fault lies with the equipment or protective devices, the photofluorographic unit should immediately be taken out of commission until such time that measurements of radiation conditions where technical or clerical personnel are required to work will yield radiation exposures less than 100 milliroentgens per week for case loads of 2,500 exposures at 95 kv. and 40 ma. seconds (the average exposure per photofluorographic chest film).

Continuation of Study

It is recommended that the Joint Committee arrangement continue and that the Joint Committee meet annually, or at the call of the co-chairmen. In an effort to have the Joint Committee act continuously and without interruption, interim ideas should be sent to the co-chairmen, and an exchange of opinion should continue during the intervals between meetings. Recommendations are solicited from all interested in the affairs of the Joint Committee.

Joint Committee on Chest X-ray

AMERICAN COLLEGE OF RADIOLOGY

Leo G. Rigler, Minneapolis, Minnesota, Chairman; Sydney J. Hawley, Seattle, Washington; Russell H. Morgan, Baltimore, Maryland; E. P. Pendergrass, Philadelphia, Pennsylvania; Paul C. Swenson, Philadelphia, Pennsylvania.

AMERICAN COLLEGE OF CHEST PHYSICIANS

Otto L. Bettag, Chicago, Illinois, Chairman; Robert J. Anderson, Washington, D. C.; Hollis E. Johnson, Nashville, Tennessee; Edward Kupka, Berkeley, California; James H. Stygall, Indianapolis, Indiana.

ASSIGNMENT OF "BLUE SEAL" BY CONTINENTAL CASUALTY COMPANY

Members are advised that the Continental Casualty Company, of Chicago, holders by registered title of the words, "Blue Seal," as applied to health, accident and hospitalization insurance services, have kindly transferred ownership of this title to Blue Shield Medical Care Plans. This transfer will serve to obviate any confusion in the minds of the public concerning "BLUE SHIELD" plans inaugurated by the medical profession. This is a most commendable action on the part of a commercial insurance carrier.

RESOLUTION

WHEREAS, an all wise Providence has seen fit to remove from our midst, Dr. Fred Wm. Harris, who was a valued co-worker and a faithful member of the Pulaski County Medical Society, Arkansas Medical Society and the American Medical Association since November 15, 1930, we the members of the society mourn and deeply regret his departure.

WHEREAS, as a physician in his chosen field of Internal Medicine, he attained a great measure of distinction and won the respect of his colleagues as well as the gratitude and love of a host of friends and sorrowing people.

THEREFORE, BE IT RESOLVED, that the Pulaski County Medical Society express to his family the esteem in which he was held a member and its heartfelt sympathy to the family at the untimely loss that they have sustained; that a copy of this resolution be made a matter of record in the minutes of this meeting; that a copy be sent to the family and a copy to the Journal of the Arkansas Medical Society.

This resolution is respectfully submitted to the members of the Pulaski County Medical Society this the 2nd day of November, 1953.

Committee on Resolutions.

RESOLUTION

WHEREAS, an all wise Providence has seen fit to remove from our midst, Dr. John Nunnally Roberts, who was a valued co-worker and a faithful member of the Pulaski County Medical Society, Arkansas Medical Society and the American Medical Association since 1935, we the members of the society mourn and deeply regret his departure.

WHEREAS, as a physician in his chosen field of Urology, he attained a great measure of distinction and won the respect of his colleagues as well as the gratitude and love of a host of friends and sorrowing people.

THEREFORE, BE IT RESOLVED, that the Pulaski County Medical Society express to his family the esteem in which he was held a member and its heartfelt sympathy to the family at the untimely loss that they have sustained; that a copy of this resolution be made a matter of record in the minutes of this meeting; that a copy be sent to the family and a copy to the Journal of the Arkansas Medical Society.

This resolution is respectfully submitted to the members of the Pulaski County Medical Society this the 2nd day of November, 1953.

Committee on Resolutions.

CORRESPONDENCE

October 12, 1953.

To the Editor:

As the enclosed protocol indicates, my associates and I are engaged in a study of the blood pressure in people 65 and over, sponsored by the New York Heart Association. Three weeks ago we mailed questionnaires to 17,000 physicians throughout the country. Each physician received a letter of instruction in filling out the questionnaires. It was suggested that he supply blood pressure and other data on six cases, if possible. Thus far the number of responses has been disappointingly small. Although we realize that a relatively short time has elapsed since the questionnaires were sent out, we are afraid that many physicians may not appreciate the value of this study and the fact that it must fail unless they give full cooperation.

In order to bring these facts to the attention of the medical profession, we would appreciate it if you could find space in your Journal to present the project, either editorially or in a special announcement, and to urge the support of physicians. Filling out the questionnaires does not require much time and many physicians will, we hope, take the trouble to do so if they understand the importance of their cooperation. Questionnaires have been sent to only about one in ten physicians. We hope that others will be interested; if they send a postcard to "BLOOD PRESSURE STUDY," 11 East 100th Street, New York 29, N. Y., the questionnaires will be forwarded to them.

With sincere thanks for your cooperation.

Sincerely,
Arthur M. Master, M.D.

PUBLIC RELATIONS
Physician
Patient
Personal

EMERGENCY CALL SERVICE FEES

Probably the number one public relations problem with us as practicing physicians is the fee that we charge. Lack of understanding or misunderstanding is the chief cause of trouble. Just a little time and effort to explain to the patient before the surgery or the anesthetic or the complicated diagnostic study would alleviate this problem.

Patients in general prefer a more or less standardized fee schedule which they know about in advance. Some physicians prefer the standard fee schedule; other physicians think that the only fair method of charging is to base the fee on the individual's ability to pay. Each of these systems of basing of fees has some advantages and some disadvantages. It doesn't make a great deal of difference how fees are set if they are fair and if there has been prior understanding and agreement.

A business-like procedure of billing and collections is decidedly more convenient for the patient. Care must be used to prevent the impression of commercialism, but the average patient prefers to take care of his financial obligations in a systematic manner.

There is a proper time for discussing fees. This is not during an emergency or when the patient is apprehensive, frightened or in pain. We must keep in mind that our profession calls for us to minister to the sick and injured regardless of time or place, of race or religion, or of ability to pay.

In dealings with our fellow men there has been no improvement on the Golden Rule.

C. L. Hyatt.

In most cases a patient's first impression of you comes as he enters your reception room. Suppose you take about two minutes time to walk into the front door of your office and into your reception room. Does it create a favorable impression? Is it neat and clean and attractive? Or could it stand some improvement?

A comment all too frequently heard is: "he's a good doctor, but his office is always so cluttered up!" Some of your patients are very sanitation conscious, especially when in a room with many other persons who may be ill. Their anxiety will not be allayed by the sight of dust and cobwebs or a desk loaded with assorted samples, records and instruments.

Many of the patients sitting in your reception room waiting on you are somewhat tense and apprehensive. Magazines, flowers, soft music, a bulletin board for information or jokes and attractive pictures may make your reception room a pleasant waiting room. Is there a rest room for those who need it? Do you or your receptionist check frequently on simple but important things like temperature, ventilation, seating room?

The A.M.A. plague "To all my Patients," will serve to break the ice for questions about fees or treatments. Many patients are hesitant to open such a discussion. Be careful to explain everything which might be misunderstood or overlooked.

Most important of all is for your receptionist to pleasantly greet each patient who enters. She should indicate at once what the patient might expect as to when the doctor may be able to see him. One of the most exasperating things for a patient is to have to wait interminably without knowing what to expect or why the doctor can't see him immediately.

These are simply things. Public relations polls have shown they mean more than you think.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

VIABILITY OF TUBERCLE BACILLI IN VIVO WITH AND WITHOUT CHEMOTHERAPY

By RENE J. DUBOS, Ph.D

The American Review of Tuberculosis, June, 1953

The fact is now clear that, despite the availability of several types of drugs highly effective against tubercle bacilli **in vivo**, it is very difficult, if not impossible, to eradicate infection from human patients, even by prolonged chemotherapy. In contrast is the other fact, long known to pathologists, that bacilli tend to disappear spontaneously and without any form of therapy from certain types of lesions, in particular from cold abscesses and from closed caseous areas. This is well confirmed by the recent observation that it is at times difficult to recover living bacilli from resected lung lesions in patients who have received no chemotherapy. Instead of being contradictory, however, these two phenomena correspond in reality to two independent aspects of the pathogenesis of tuberculosis. In this connection some experimental findings bearing on this problem are presented.

The failure of drugs to kill all bacilli in infected tissues has been observed, not only in human tuberculosis, but also in many types of experimental infections. This may be illustrated by examples taken from studies in mouse tuberculosis.

Results obtained independently by Dr. McCune of the Department of Medicine of the New York Hospital, and in our own laboratory, may be condensed very briefly. Mice were infected intravenously with doses of culture containing approximately from one hundred to one million organisms. Several strains were used, some virulent, others attenuated. The animals were treated with either streptomycin or isoniazid, or simultaneously with both drugs, the therapy being started on the very first day of infection and continued thereafter. Some of the animals were sacrificed at weekly intervals during three months. Although no macroscopic evidence of tuberculous lesions could be recognized in any animal, living tubercle bacilli could be recovered from all of them, even when BCG was used and when therapy had been continued for 85 days. Moreover, bacillary invasion of the tissues began uniformly within a few days after discontinuance of the drugs. Several lines of experimentation have thrown light on the mechanism of this disturbing phenomenon.

First there must be recognized the all important fact that, despite early claims, it is practically impossible to sterilize cultures of tubercle bacilli **in vitro** by adding to them either streptomycin or isoniazid. True enough, most of the bacilli appear to die rapidly in contact with the drugs, but a few survive prolonged exposure to them. The phenomenon probably has its counterpart **in vivo**. It is probable, in other words, that a certain percentage of the bacilli in an infected individual survive exposure to the drugs, not because they have developed hereditary "drug resistance," but because they exist in a form different from that in which observations are usually made.

Another reason for the difficulties experienced in eradicating infection may be that **in vivo** a large percentage of the tubercle bacilli are present, not free in body fluids, but instead within phagocytic cells. Experiments in tissue cultures have revealed that the inhibitory power of streptomycin fails to manifest itself against the growth of bacilli which have been engulfed by monocytes—a fact which certainly contributes to the inability of this drug to eradicate infection.

This explanation, however, cannot serve in the case of isoniazid, for this drug is just as effective intracellularly as it is extracellularly, in tissue cultures at least. It must be assumed, therefore, either that the bacilli can be engulfed by cells which behave toward the hydrazide in a manner other than that of the monocytes or, more likely, that some factor in the **in vivo** environment antagonizes antibacterial activity. The problem of the existence in tuberculous lesions of substances capable of inhibiting antimicrobial drugs is one worthy of attention. Areas of necrosis, particularly of caseation necrosis, contain a variety of partially broken-down tissue components of un-

known chemical composition, many of which are likely to act as drug inhibitors. The finding that drugs penetrate caseous matter is no warrant, therefore, that they can exert their antibacterial action in the physiochemical environment of the lesion.

Bacilli often disappear spontaneously from certain types of lesions, without the help of chemotherapy. This fact is so well documented that there is no need to give more evidence of it. The presence in animal tissues of several substances might be responsible for this effect. These substances are: **(a)** The naturally occurring amines, spermine and spermidine. **(b)** The enzyme lysozyme which does not lyse the bacilli, but can kill them rapidly even in highly dilute solution (1:100,000). **(c)** A basic polypeptide which has been recently isolated from the thymus gland.

Organic acids accumulate in and around tuberculous lesions as a result of the anaerobic metabolism of inflammatory cells and of the activity of the lipolytic enzymes released during necrosis. Bacilli are unable to multiply in ordinary media, and fail to infect laboratory animals, after exposure for several weeks to physiologic concentration of the sodium salts of several organic acids. Sterilization of the cultures occurs when the atmosphere is completely or partially anaerobic and when the CO_2 tension is higher than normal. These are precisely the conditions prevailing in certain types of closed lesions.

There is another problem which has loomed very large during the past two years, namely, whether the bacillary forms which can be seen in resected lesions but which fail to grow in culture media and to cause disease in experimental animals should be regarded as "dead," or merely as dormant but potentially viable, bacilli. None of the evidence adduced so far is of much help in answering it. In my opinion, the techniques used by the various investigators were not adequate to determine the potential viability of dormant bacillary forms.

Organisms in which respiration is at a low level may merely have exhausted an essential metabolite, or be in a resting form akin to that of spore, and yet may be able to multiply when placed in the proper environment. This type of apparent death followed by revival under other conditions is common in many fields of microbiology.

Finally, one should not overlook the fact that tubercle bacilli are present not only in the parenchymatous lesions but also in lymphatic tissues. In cattle which have received a virulent infection after vaccination with BCG and show no overt sign of tuberculosis, the virulent bacilli can invariably be found in lymph nodes for months and years thereafter. It is known that even BCG bacilli can persist for several years in the lymph nodes of man and animal. Laboratory experiments have revealed, furthermore, that prolonged therapy with isoniazid fails to eradicate BCG infection.

All these facts leave the impression that no technique is as yet available to bring about with certainty a complete eradication of the bacilli from infected tissue. After antimicrobial drugs have ceased to exert their restraining influence on infection, either because the infective organisms have become resistant to them or because therapy has been interrupted, only the resistance of the host can act as a brake on reactivation of disease caused by the bacilli surviving here and there, detectable or not by the classical methods of pathology and bacteriology.

OBITUARY

CHARLES H. LUTTERLOH, age 56, died of a heart attack October 30th in his office at Hot Springs National Park. Born in Jonesboro, he graduated from the University of Arkansas and received his medical degree in 1921 from Tulane University of Louisiana. He originally located in Jonesboro but moved to Hot Springs National Park in 1931. He was a diplomate of the American Board of Internal Medicine, a fellow of the American College of Physicians, a past-president of the Garland County Medical Society and of the Mid-South Post-Graduate Medical Assembly and had served as a member of the State Medical Board of the Arkansas Medical Society. He served during World War II with the rank of lieutenant-colonel. He was a member of the Masonic bodies and the Shrine and of the First Methodist church. Surviving are his wife and his mother.

"SPARKS FROM THE SECRETARY"

October 4th through the 9th was spent in Chicago at the American College of Surgeons meeting. This meeting was a very, very large meeting, quite scientific in its aspect and was thoroughly enjoyed by all who attended. It was so large that a great many could not see the televised color surgery as provided by Smith, Kline and French Company for the two, four by six, screens could accommodate only approximately 800 people. The panel conferences were very good and surgical forums were also excellent. Of note is one large number of Arkansas men who attended the meeting and the list of which you will find elsewhere in the Journal.

An outstanding event was the hospitality offered by Joe Shuffield in Suite 1900, where nearly all the Arkansas folks showed up, many of them with their "better halfs." Dr. Joe is a very gracious host and the meeting of the Arkansas friends was indeed enjoyable. A great many former Arkansas people also attended.

Sign noted in the Morrison Hotel in Chicago, "Women —Fire Hose Extinguishers." This seems to us to be the acme or something in signs!

Another little note of interest was the South Carolina car with the Army officer in it, with his family, who did not seem to be loaded down with anything unusual indicating a move, except that on top of his car was a set of bare bed springs!

The Second District Medical Meeting was held in Searcy, Arkansas, with an excellent program provided by Fred Gray, of Little Rock, and Dean Wallace, of Little Rock. As a hint for some of the other District Medical Societies, we had our Congressman attend, although he did not make a speech!

The First and Third Districts had a most excellent meeting at Forrest City of a truly grand nature. Your scribe was very sorry that a former commitment made it impossible for him to attend but from first hand reports, it certainly must have been quite a memorable event, not only scientifically but socially as well.

Of good note is the editorial on the Journal of the Journal of the American Medical Association, on page 647, entitled a "Job Well Done." This refers to the stellar work done by our medical society law colleague, Eugene Warren, in regard to his work with the Schirmer Hospital in Corning. I think you will be pleased with it when you read it.

In a very short time the Arkansas Division, American Cancer Society, 88 South Fourth Street, Fort Smith, will have available the new film, "The Warning Shadow," which deals with lung cancer. It will be available for professional showings for any group of doctors desiring it. This hint to County Medical Program Committees should be worthwhile!

With so many cases popping up in the literature of irreversible shock appearing in even minor procedures, with anesthesia on patients who have had Cortisone in the past, even six months before; and with the many case histories of disaster occurring following the use of Dicumarol; do you not think it would be a good idea for the medical profession to have such patients "tagged," such as diabetic or narcotic-allergic people are tagged?

We note with joy the formal opening of the "Sisco Clinic" in Springdale by Freidman Sisco, Ed Wheat and R. E. Edmondson. These intelligent and agreeable persons are sure to have every bit of the great success we wish for them.

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PERSONALS AND NEWS ITEMS

R. E. McLochlin, Little Rock, and Allan A. Gilbert, Fayetteville, conducted a diagnostic heart clinic at Berryville October 22nd under the sponsorship of the Carroll County Medical Society and the Arkansas Heart Association.

Charles A. Taylor has been elected president of the Batesville Kiwanis club.

The Barlow Clinic at Dermott has been leased by Paul O. McCutcheon, formerly of LaFayette, Louisiana.

A diagnostic cancer clinic was conducted at DeWitt November 19th by Robert Jones, Little Rock, under the sponsorship of the Arkansas County Medical Society, and the Arkansas Division, American Cancer Society.

E. F. Brewer, Augusta, has received the Golden "T" of the University of Tennessee School of Medicine signifying completion of fifty years of practice.

G. R. Siegel has been re-elected mayor of Clarksville.

Dr. and Mrs. D. W. Goldstein, Fort Smith, spent an October vacation at Edgewater Gulf, Mississippi.

The Arkansas Society of X-ray Technicians was addressed at Fort Smith November 7th by E. Z. Hornberger, "The Advantages of X-ray in the Diagnosis of Heart Conditions"; W. R. Brooksher, "Radioisotopes," and Carl and Morton Wilson, "Radiography in Urology," all speakers of Fort Smith.

Gordon Oates has been released from naval service and has returned to practice at Little Rock.

Contributions to the American Medical Education Foundation during October were announced from the following: Louis A. Cohen, Little Rock; John W. Dorman, Springdale; E. M. Gray, Mountain Home; C. D. Gunter, Siloam Springs; J. D. Huskins, Siloam Springs; C. L. Hyatt, Monticello; M. C. John, Stuttgart; J. S. McKinney, El Dorado; A. R. Sparks, Little Rock, and R. F. Hyatt, Jr., Monticello.

Jan Crow has located at Rison.

Eva F. Dodge, Little Rock, conducted a diagnostic cancer clinic at Parkin October 15th under the sponsorship of the Cross County Medical Society and the Arkansas Division, American Cancer Society.

Milton Lubin has located at Turrell.

Dr. and Mrs. J. F. Gulledge, Siloam Springs, celebrated their 60th wedding anniversary October 18th.

The Arkansas State Arbitration Commission has elected Joseph Buchman, Little Rock, Chairman, and Mr. Bill Magar, Little Rock, Secretary.

A. C. Curtis, formerly with the Arkansas State Board of Health Tuberculosis Control Department has been assigned to duty with the United States Public Health Service in Ethiopia.

Dr. and Mrs. H. Fay H. Jones attended the Annual Meeting of the South Central Section of the American Urological Association in Kansas City in September. Dr. Jones appeared on the program as leader of two discussions.

L. C. McVay, Marion, has received the Golden "T" of the University of Tennessee College of Medicine as recognition for fifty years in practice.

L. A. Whittaker, Jr., Fort Smith, addressed the Crawford County Memorial Hospital Guild October 8th on "Lung Pathology."

October hunters were Merle Woods, Huntington, in Wyoming; R. A. Downs, Fort Smith, in South Dakota, and H. M. White, Rogers, in Colorado.

Drs. Freidman Sisco, Ed Wheat and R. P. Edmondson have moved into the new Sisco Clinic Building at Springdale.

Julius Hellums, Dumas, has been elected Chairman of the Board, Arkansas Division, American Cancer Society.

James M. Post has returned from military service and has resumed the practice of pediatrics at 305 South 16th Street, Fort Smith.

The following were registered at the Atlanta session of the Southern Medical Association: Hoyt Allen, Little Rock; C. A. Archer, Conway; Willis E. Brown, Little Rock; Hoyt L. Choate, Little Rock; O. H. Clopton, Rector; K. W. Cosgrove, Little Rock; Richard C. Dickinson, Horatio; Eva F. Dodge, Little Rock; T. M. Durham, Jr., Hot Springs National Park; H. N. Faulkner, Helena; N. E. Fraser, Conway; D. W. Goldstein, Fort Smith; Dorothy Goetze, Hot Springs National Park; Vida H. Gordon, Little Rock; Louise Henry, Fort Smith; Louis K. Hundley, Pine Bluff; O. J. T. Johnston, Batesville; F. H. Jones, Piogott; W. E. Knight, Fort Smith; J. K. Laws, Texarkana; J. S. Levy, Little Rock; R. M. Logue, Little Rock; L. H. McDaniel, Tyronza; H. C. Nicholson, Little Rock; Wm. S. Orr, Jr., Little Rock; Fount Richardson, Fayetteville; C. W. Shafer, Little Rock; Kenneth A. Siler, Siloam Springs; Euclid M. Smith, Hot Springs National Park; C. G. Sutherland, Little Rock; James T. Wortham, Little Rock, and Freida Wilhelm, Texarkana.

R. E. Crigler has been elected treasurer of the Fort Smith Kiwanis club.

Paul L. Mahoney, Little Rock, has taken a leave of absence from his office to do special work in the Little Rock Veterans Hospital. During this time the office will be in charge of Dr. Howard A. Bailey.

L. M. Henry, Fort Smith, addressed the Turner Memorial Hospital staff, Ozark, November 2nd, on "Cardiac Arrest."

S. W. Hawkins, E. Z. Hornberger and H. C. Darnall, Fort Smith, conducted a diagnostic cancer clinic at Fayetteville October 29th under the sponsorship of the Washington County Medical Society and the Arkansas Division, American Cancer Society.

Dr. and Mrs. W. T. Holman, Jr., Van Buren, spent a recent vacation in Virginia.

Rogers Edmondson, Springdale, is taking special work in electrocardiography at Chicago.

PROCEEDINGS OF SOCIETIES

The Second Councillor District Medical Society met at Searcy, October 12, with a dinner meeting at the Rendezvous Cafe. A good many of the ladies attended also. The program was the most excellent, consisting of a paper by Fred Gray, of Little Rock, on the subject "Bronchiogenic Carcinoma," and a paper by Dean Wallace, of Little Rock, on "Conservatism of Ovarian Surgery." Both papers were excellent and were well received.

The Honorable Wilbur D. Mills, Congressman from the 2nd District, attended the meeting and was greeted with a very warm welcome by everyone.

A resolution was adopted unanimously reiterating the stand of the 2nd Councillor District to be sent to Congressman Mills and the rest of the Congressional Delegation from Arkansas and to our two Senators, stating that the doctors of their area had no desire to be included in any proposed Social Security plans, as proposed by the present administration.

An election of officers was conducted and T. J. Raney, Heber Springs, was elected President and Claud Barnett, Heber Springs, was elected Secretary. Dr. Raney immediately gave a gracious invitation to hold the March meeting of the 2nd Councillor District Medical Society in Heber Springs.

The Craighead-Poinsett County Medical Society met at Jonesboro November 4th with Drs. William Parker and David Simon, Saint Louis, discussing "Advances in Dermatology."

J. H. McCurry, Secretary.

The Association of Tumor Clinic Staff Members in Arkansas met at the Marion Hotel, Little Rock, October 29th, for the following program: "The Diagnosis and Treatment of Cancer of the Head and Neck," H. Mason Morfit, Denver, and "The Significance of a Nipple Discharge in the Non-Lactating Breast," Ralph H. Braund, Memphis.

The Sebastian County Medical Society was addressed November 10th by T. P. Foltz, "Tumors of the Neck."

E. Z. Hornberger, Secretary.

The Benton County Medical Society was addressed November 12th by Kenneth A. Siler, Siloam Springs, on "Hospital Service in Benton County."

John A. Rollow, Secretary.

The Pope-Yell County Medical Society was addressed November 12th by James Headstream, Little Rock, on "Urinary Problems of Children."

The Arkansas Society of Obstetrics and Gynecology met at Little Rock October 31st for the following program: "Carcinoma in Situ," Chas. R. Henry, Little Rock; "Problems of Male Infertility," William H. Masters, Saint Louis; "Breech Delivery," Charles Wickard, Little Rock; "What's New in Obstetrics and Gynecology," J. F. Kelsey, Fort Smith; "The Rh Nightmare," Haynes Jackson, Hot Springs National Park; "Habitual Abortion and Its Relation to Infertility," William H. Masters, Saint Louis, and film presentation, "Menopause," Willis E. Brown, Little Rock.

WOMAN'S AUXILIARY NEWS

The Washington County Medical Auxiliary held its regular monthly meeting on September 11th at the Mountain Inn Hotel in Fayetteville with seventeen members present. Mrs. A. A. Little, President of the Arkansas Medical Auxiliary, was guest speaker, giving a very interesting and informative talk on the recent National meeting which she attended. Mrs. Little also told of this year's Auxiliary objectives and outlined the program for completing them.

Our Medical Auxiliary has this year assisted in the organization of the Washington County Hospital Auxiliary which is already undertaking many projects.

On May 25th, the Public Relations Committees of the Washington County Medical Society and Auxiliary sponsored an hour radio program over station KBRS, Springdale. This program was a round table discussion on public health. Radio time was donated by the civic clubs of Springdale. Speakers representing the county medical society were: Dr. Coy Kaylor and Dr. Harrison Butler of Fayetteville; Dr. Stanley Applegate and Dr. John Dorman of Springdale; and Dr. Wilma Sacks, Washington County Public Health Officer. Representing the county medical auxiliary were Mrs. Spencer Brown, of Fayetteville, and Mrs. John Dorman, of Springdale. Nurses on the panel were Miss Doris Mace and Miss Virginia Dickson of the Washington County Hospital who have had special training in the care of polio patients. With Mrs. Sybil Eidson as commentator, the panel answered questions of general interest about public health, polio, water fluoridation, heart disease, and cancer.

Mrs. Ed Wheat.

MEDICAMENTA VERA

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THE

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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• SPECIAL FEATURES

Committee on Cancer Control.... 133

The Mechanism of Action of Antibiotics 134

What's New in Obstetrics and Gynecology 139

Recent Trends in General Surgery 142

Constitutional Amendments 146

• FEATURES

Tuberculosis Abstracts 148

Editorial 150

Roundup Story on House of Delegates 151

The Job of the Individual Physician 153

"Sparks from the Secretary" 154

Personals and News Items 155

Woman's Auxiliary News 155

Proceedings of Societies 156

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COMMITTEE ON CANCER CONTROL

C. A. ARCHER, Chairman
Conway

STATE ASSOCIATION OF TUMOR CLINIC STAFF MEMBERS

W. H. HANDLEY, JR., M.D., Chairman
El Dorado

This association was organized in March, 1949, to further interest the profession in the study and detection of cancer over the state. It is sponsored by the State Cancer Commission. Its membership includes basic and consultant staffs of the seven tumor clinics in the state, with the staff members serving on a voluntary basis, receiving no fees.

As pointed out by an article recently in this Journal by the Committee on Cancer Control of the Arkansas Medical Society, patient education is a prime factor in seeing the cancer patient early while he is still in the "curable stage." This is one of the prime activities of the tumor clinics over the state designated by the State Cancer Commission as being qualified for and as having adequate facilities for the diagnosis and treatment of cancer, with the staff members serving on a voluntary basis, receiving no fees. These clinics are cancer detection centers and strive to educate the patient on early signs of cancer. They also try to impress on the patient the importance of seeking early medical care upon the appearance of any of the "danger signals."

This organization was previously supported by Federal funds, but is now going on a self-supporting status. Activities and procurement of well-known authorities for educational speakers will hereafter be financed through funds of the organization. I would like to urge your individual membership and ask your support of this association.

Our work of cancer diagnosis and patient education has progressed rapidly due to the energetic work of the several related groups. It is hoped that the doctors of the state will not forget that this is an important responsibility to the public and will continue their very strong support and participation in this program. The organization is of your clinics and for the patient as well as the physician.

THE MECHANISM OF ACTION OF ANTIBIOTICS†

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The history of bacterial chemotherapy is largely the story of man's search for remedies which can overcome the consequences of infection. Little progress was made in this field prior to the introduction of the sulfonamides and the subsequent discovery of the remarkable effectiveness of the antibiotics derived from fungi. The lack of progress may be attributed in large measure to the almost complete ignorance of the basic factors which determine the antibacterial action of various substances. Because of this lack, investigators, for the most part, were forced to proceed by the empirical method of trial and error. This is true even at the present time. To the uninitiated this may seem appalling and inexcusable in our touted scientific age. For this reason a brief review of present knowledge of the mechanism of action of the antibiotics and related antibacterial substances may be of interest.

Bacteria, like other forms of life, are dynamic systems constantly undergoing an essentially complete change in chemical composition by interchange of material with their environment. This interchange is a consequence of myriad enzyme mediated chemical reactions, all of which play some role in the life of the cell. When a bacterial cell divides into two daughter cells, highly specific chemical reactions must be brought into play. The precise nature of these reactions is unknown. This lack of knowledge is one of the major handicaps in our attempts to understand the mechanism of action of antibacterial substances. Nevertheless, such ignorance need not prevent us from adopting the view that chemotherapeutic agents are effective because of their ability to interrupt the orderly sequence of chemical reactions which determine the life and growth of bacterial populations. This view is not new. It was expressed by Paul Ehrlich, the father of chemotherapy, although he was unable to formulate it in precise chemical terms. Much evidence attesting the validity of this concept has been accumulated since Ehrlich's time.

During the first decade of the present century a number of investigators reached the conclusion that the interaction **in vitro** of a disinfectant with a uniform bacterial population followed some law akin to that of mass action. Since the latter law is a fundamental one governing the course of reversible chemical reactions, it was assumed that the disinfectants reacted in a purely chemical fashion with components of bacterial cells. Persuasive evidence for this view was afforded by the experiments of Chick and Martin. These authors made the interesting observation that the lethal effect of mercuric chloride upon **Staphylococcus aureus** could be abolished by subsequent treatment with hydrogen sulfide. When a suspension of the cells of this organism was brought into contact with a solution of mercuric chloride, washed and resuspended in an appropriate medium, no evidence of growth could be detected. However, if from time to time, up to seven hours after exposure of mercuric chloride, aliquots of the bacterial suspension were removed, treated with hydrogen sulfide water, and transferred to a culture medium, growth took place. From this it was concluded that the mercury combined with substances in the bacterial cell and that this combination "prevented the organism manifesting its vitality by growth."

We cannot quarrel with this conclusion but we may profitably amplify it. Because in the experiment cited the bacterial cells poisoned with mercury remained viable for some hours before death ensued, it is evident that life must have been maintained at the expense of intracellular components. It follows, that death supervened only when the reserve supply of these components was exhausted and that this exhaustion must have occurred because of the inability of the poisoned cells to reform the essential component. Thus the bacterial cells were not killed by contact with mercuric chloride. This poison merely inhibited one aspect of the cells' metabolism, and this inhibition, for the reasons given above, ultimately caused the death of the bacteria. In general, the clinically useful antibacterial agents appear to act upon bacteria in an essentially similar fashion. All these substances appear to react with intercellular components in a fashion which ultimately prevents the synthesis of essential cellular components requisite for the continued life of the cell.

The general nature of this phenomenon is evident from the often repeated observations that the majority of the recently available antibacterial agents exert bactericidal action most effectively upon actively growing bacteria. In view of the foregoing, this observation is not particularly remarkable, for it is evident that demands upon the synthetic abilities of bacterial cells must be much

† Read before Seventy-seventh Annual Session, Arkansas Medical Society, Little Rock, April 20, 1953.
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greater during growth than in a nongrowing population.

Experimentally, this has been shown with both the sulfonamides and with penicillin. Transient exposure of sensitive strains of bacteria to these substances does not cause any marked diminution in the magnitude of those metabolic activities which can be quantitatively measured. But changes in these activities are easily detected following the addition of minimal bactericidal amounts of the antibacterial agents to actively growing cultures. In this circumstance, it is found that both bactericidal action and the attendant changes in metabolic activity are evident only after the microorganisms have been exposed to the antibacterial agent for the time period required for the conduct of several cellular divisions. From observations of this type we can deduce that, like mercuric chloride, the sulfonamides and penicillin both interfere with the intracellular synthesis of essential cellular components without primarily inhibiting the metabolic utilization of performed reserves of such components.

From this analogy one must not conclude that the mechanism of action of the sulfonamides and of the various antibiotics is identical in the sense that all these substances can inhibit a single intracellular master reaction, required to maintain life. As will be shown presently, definite experimental evidence to the contrary is available. Even in the absence of such evidence the tenuous nature of such an hypothesis should be apparent from both bacteriological and chemical considerations. Thus the well-known differences in the antibacterial spectra of the different antibiotics and the marked differences in their chemical constitution testify to the likelihood that each of these substances inhibits a different reaction sequence in the catenate of reactions characteristic of bacterial metabolism.

The mechanism of action of the sulfonamides is now fairly well understood. Aside from the intrinsic interest of this, it will be profitable to examine this mechanism because of the light it throws upon some aspects of the antibacterial action of the antibiotics.

The initial clue to current concepts of the mechanism of action of the sulfonamides was afforded by the observation that the antibacterial action of these substances could be effectively antagonized by the simultaneous presence of an adequate quantity of p-aminobenzoic acid. The extent of this antagonism was found to be uniquely determined by the ratio of the respective concentrations of the sulfonamide and of p-aminobenzoic acid in the medium and to be independent of the absolute concentration of either substance. From this it is deduced that both substances are capable of reversible union with a common cellular entity. This entity is believed to be the enzyme system by which p-aminobenzoic acid is converted to pteroylglutamic acid (folic acid). The former substance is a structural component of the latter and the formation of pteroylglutamic acid by bacterial cells is inhibited when sulfonamides are added to their cultures. As pteroylglutamic acid is formed by bacterial cells when growing in media devoid of p-aminobenzoic acid, it is obvious that this acid is formed by an independent synthetic mechanism. Thus, the primary locus of action of the sulfonamide drugs on sensitive strains of bacteria is on the mechanism involved in the formation of pteroylglutamic acid. Since the sulfonamides are antibacterial agents, it follows that pteroylglutamic acid must play a highly essential role in the life of sulfonamide-sensitive species of bacteria. The chemistry of this role need not be here considered in detail. For present purposes it will suffice to state that experimental evidence exists indicating that in the normal course of bacterial metabolism, pteroylglutamic acid undergoes conversion to citrovorum factor, a substance concerned in the transfer of a single carbon atom moiety required for the synthesis of various amino acids and purines.

In bacterial cells the formation of methionine, xanthine, serine and valine appears to be dependent upon the antecedent formation of pteroylglutamic acid and its derivative citrovorum factor. This is deduced from the fact that an appropriate mixture of these substances effectively antagonizes the antibacterial action of sulfonamides. Thus in a simple synthetic medium in which the growth of a strain of **E. coli** was completely inhibited by sulfanilamide in a concentration of 3 mg. per cent, the addition of suitable quantities of the five substances mentioned above permitted growth to occur, even when the sulfanilamide concentrations were increased to 200 mg, per cent. In this instance, the added substances supplied the bacteria with essential metabolites necessary for growth which they normally formed through the intervention of pteroylglutamic acid.

With these facts in mind it is easy to account for the fact, noted previously, that in the presence of sulfonamides bacterial growth continues for several generations before death supervenes. Evidently, such growth is possible because the parent cells have had the opportunity to accumulate a reserve supply of pteroylglutamic acid prior to exposure to the sulfonamide. Because of this reserve, growth may occur. But the growth of

bacteria involves the formation of new cells containing all the cellular components characteristic of the species. Among these components is the enzyme system involved in the synthesis of pteroylglutamic acid. Because of this the latter would become available in increasing quantity were it not for the continued presence of the sulfonamide. In the presence of the sulfonamide the newly formed enzyme system is inactivated as rapidly as it is formed. This, of course, prevents any further synthesis of pteroylglutamic acid. In consequence the production of methionine, xanthine, etc., required to maintain life, ceases. On this basis one can readily understand why transient contact of sensitive strains of bacteria with a sulfonamide has no deleterious results. The temporary inhibition of the synthesis of pteroylglutamic acid is of no moment for two reasons. As previously emphasized, reserve stores of the substance can meet the needs of the organism for a time. A more important consideration stems from the reversible nature of the union of the sulfonamides with the intercellular enzyme system. As we have seen, bacterial cells appear to form p-aminobenzoic acid by a means independent of that involved in its incorporation into pteroylglutamic acid. Accordingly, once living bacteria are removed from contact with a sulfonamide, any of the drug in combination with the essential enzyme system will be displaced by available p-aminobenzoic acid. It is for this reason that in infected animals and man the maximal therapeutic potentialities of the sulfonamides are realized only by the sustained maintenance of an adequate blood level.

This concept involving the reciprocal relationship between the intracellular synthesis of an enzyme complex and of a product formed through the mediation of this complex offers a satisfactory explanation of most aspects of the inhibition of bacterial growth by sulfonamides. The same concept may be invoked to account for the bactericidal action of any antibacterial agent known to inhibit bacterial growth although devoid of marked effect upon the activities of non-proliferating cells. As noted earlier, this is characteristic of the action of penicillin.

Unlike the sulfonamides, penicillin is able to combine irreversibly with some cellular entity which we may designate as the penicillin receptor. Evidence for the probable existence of this receptor and of the ability of penicillin to combine irreversibly therewith is seen in the observation that even transient contact of sensitive bacteria with penicillin definitely prolongs the lag phase of growth when the organisms are transferred to a suitable culture medium. More direct evidence for the existence of an intracellular penicillin receptor has been obtained in experiments conducted with radioactive penicillin. Such penicillin has been obtained by cultivation of penicillin-producing fungi in media containing a radioactive sulfur isotope. When bacteria are brought into contact with radioactive penicillin, washed to remove the excess antibiotic, and subsequently examined, they are found to be radioactive. This has been independently observed by investigators both in this country and in England.

The English investigators have found that when exposed to a very low concentration of penicillin, a sensitive strain of **Micrococcus pyogenes** can concentrate the penicillin intracellularly. This concentration proceeds in a manner indicating that the penicillin participates in an irreversible chemical reaction. With this species of microorganism the quantity of penicillin reacting in this manner varies with the experimental conditions. Thus in thick suspensions in which very little or no growth could occur, a maximum quantity of penicillin was found to enter into combination with the bacterial cells within 3 minutes. In contrast, the cells in actively growing cultures of the same species exhibited an initial rapid uptake of the antibiotic, followed by a continued slower uptake. As a result of this, it was found that, just prior to cessation of growth, the cells had acquired a content of irreversibly bound penicillin approximately ten times that acquired in non-proliferating suspensions. These observations clearly indicate that a progressive synthesis of the penicillin receptor must have occurred during the period of growth.

The precise chemical nature of the penicillin receptor is not presently known. Nevertheless an estimate of the amount present in bacterial cells may be made from determinations of the quantity of radioactive penicillin bound by such cells. Determinations of this type place this amount at from less than 10 to 750 molecules of penicillin per bacterial cell. Utilizing the larger of these two estimates and for purposes of computation, assuming the receptor to have a molecular weight equal to that of benzylpenicillin, we may easily calculate the volume of bacterial cells which should contain 1 gram of the receptor. Such a quantity of cells of **Micrococcus pyogenes** would occupy a volume of 500,000 liters, a volume equal to that of a cube 9 yards long on each side. To collect such a volume of bacteria would be a formidable task. To isolate therefrom the receptor of unknown chemical properties might well be an even more formidable task. Because of this, it is unlikely that the penicillin receptor will be isolated

and chemically identified by conventional methods in the near future. Despite this, much is known concerning the mechanism of action of penicillin. This knowledge has been obtained by examining the biochemical abnormalities exhibited by bacterial cells grown in the presence of subbactericidal concentrations of penicillin. Most of these abnormalities are probably secondary manifestations of the initial biochemical lesion evoked by the union of penicillin and its intracellular receptor.

The earliest consequence of this union detected up to the present is an interference with the intracellular formation of ribose nucleic acid. In this connection, it seems advisable to call attention to the fact that all species of cells contain two types of nucleic acid. These are desoxyribose nucleic acid, associated with the nuclear and genetic apparatus, and ribose nucleic acid, present in the cytoplasm. Several years ago the Swedish cytologist Caspersson suggested that the intracellular synthesis of proteins is dependent upon the antecedent synthesis of ribose nucleic acid. That intracellular formation of each of these two classes of compounds is intimately connected with that of the other is supported by a variety of evidence. For example, in cultures of **B. lactis aerogenes,** in various media, it has been found that during the period of growth the cellular content of desoxyribose nucleic acid remains tolerably constant, but that the amount of ribose nucleic acid varies as does the rate of growth. This finding has led to the intriguing hypothesis that the ribose nucleic acid formed in the course of bacterial growth acts as a template to guide the sequence in which various amino acid residues are incorporated into proteins synthesized by the cell. These proteins, in turn are assumed to govern the pattern in which different nucleotides are arranged in the nucleic acid molecule. The mathematical consequences of this assumed reciprocal relationship describe fairly accurately some aspects of known laws governing the increase in bacterial populations. On this basis it is evident that any interference with the intracellular formation of desoxyribose nucleic acid would subsequently interfere with protein synthesis and consequently with growth.

Growth in the presence of penicillin appears to engender an interference of this type. This has been demonstrated by comparative analyses of cells of **Micrococcus pyogenes,** grown respectively in the absence and in the presence of penicillin. The analyses disclosed that growth in the presence of penicillin definitely inhibits the rate of synthesis of ribose nucleic acid. This inhibition is accompanied by a decrease in the cellular content of free purines and of an as yet unidentified ester of phosphoric acid. These decreases are attended by a definite intracellular accumulation of nucleotides and nucleosides. Evidently growth in the presence of penicillin interferes with incorporation of the latter two substances into nucleic acids. Whether or not this is the primary biochemical lesion induced by penicillin cannot be stated at this time. But these observations seem of fundamental importance in view of the relationship of ribonucleic acid to protein formation.

Several years ago, the English biochemist, Ernest Gale, discovered that glutamic acid enters gram positive bacterial cells by a process of secretion rather than by simple diffusion, as previously supposed. In common with other secretory processes, the intracellular accumulation of glutamic acid by this means is dependent upon a continuing supply of energy obtained by the glycolysis of glucose. Neither the secretory process nor the normal course of glycolysis is influenced by the presence of penicillin. However, when Gram positive bacterial cells are allowed to grow for a short time in the presence of this antibiotic, they develop a marked impairment of their ability to acquire glutamic acid from environmental fluids. As this impairment appears to be a secondary effect stemming from a primary effect of penicillin upon growing cells, we need not consider it further at this time.

In two papers which have just come to hand, Gale and Folkes have reported the results of a most interesting series of investigations concerning protein synthesis by a strain of **Micrococcus pyogenes.** In the first of these papers, experiments are described which show that washed cells of this microorganism, suspended in a medium containing glucose and all essential amino acids, are able to form both nucleic acids and proteins. The rate of synthesis of both these important cellular components was found to be markedly enhanced by the addition of purines and pyrimidines to the basal medium. In media supplemented in this way it was found that the particular composition of the medium which permitted the optimal rate of nucleic acid synthesis also permitted protein synthesis to occur at the optimal rate. This, of course, is in agreement with the concept that intracellular formation of nucleic acids is intimately connected with that of proteins.

In a second paper Gale and Folkes offer experimental evidence showing that chloramphenicol, terramycin and aureomycin, when individually added to the medium in bactericidal concentrations, almost completely inhibit the formation of

intracellular protein without depressing the rate of nucleic acid formation. Indeed the rate of the latter process was accelerated to some extent. Neither the synthesis of nucleic acid nor of protein was found to be inhibited by the presence in minimal bactericidal concentrations of either penicillin or streptomycin.

Chloramphenicol, aureomycin and terramycin appear to inhibit bacterial protein synthesis by interfering with the normal relationship between this process and the synthesis of nucleic acid. This relationship is probably a complex one involving the participation of a number of enzymes. If this be true, it is likely that the different antibiotics known to inhibit protein synthesis do so by inhibiting different stages of the reaction sequence involved. This would appear to be a necessary consequence of the established differences in their chemical constitution. Despite this, the ability to interfere with the synthesis of bacterial protein shared by chloramphenicol, aureomycin and terramycin undoubtedly accounts for the broad spectrum of their antibacterial action.

Unlike any of the antibiotics mentioned in the preceding discussion, the antibacterial action of streptomycin appears to derive from its unique ability to inhibit an important step in the oxidative metabolism of bacteria. The precise manner in which this is brought about is unknown at present. It is, however, well established that the utilization of glucose by all types of cells so far investigated depends upon a complex sequence of reactions. In this sequence, pyruvic acid occupies a central role. All cells capable of oxidizing glucose form pyruvic acid, which then participates in an interesting cycle of reactions ultimately yielding carbon dioxide. This same cycle of reactions is also involved in the oxidation of fatty acids. While the main features of this cycle probably obtain in all species of cells, specific deviations therefrom may be exhibited in particular species. Thus a number of bacterial species, including **Escherichia coli,** can oxidize pyruvic acid simultaneously by two alternative pathways leading to the formation, respectively, of acetic acid and of carbon dioxide.

In the presence of streptomycin the relative amount of acetic acid formed by **E. coli** is excessive. This, of course, implies that the antibiotic selectively inhibits the oxidation of pyruvic acid, and hence of glucose, to carbon dioxide. This inhibition has been carefully investigated by Umbreit and his collaborators, who have found that the streptomycin sensitive mechanism is a condensation reaction, probably with oxalacetate, by which pyruvic acid normally enters the respiratory cycle mentioned above. The details of this, which seem to involve hitherto unrecognized components of the cycle, have not yet been clarified. Whether or not an analogous interference with pyruvate oxidation accounts for the antitubercular action of streptomycin cannot be decided at present. It is known, however, that streptomycin can inhibit, albeit not completely, the oxidation by **Mycobacterium tuberculosis,** of saturated acids containing a dozen or more carbon atoms in their molecules. This inhibition may be of importance in determining the antitubercular action of streptomycin. In this connection it is of interest to note that the oxidation of higher fatty acids by **M. tuberculosis** very likely involves essentially the same cycle of reactions that is required for the complete oxidation of pyruvic acid in other bacterial species.

In the foregoing, no mention has been made of resistant strains of bacteria. As is well known to clinicians, such strains have appeared with almost frightening frequency following the introduction into general use of each new chemotherapeutic agent. Some investigators, either unfamiliar with or indifferent to the modern concepts of genetics, have believed that contact with an antibiotic causes the conversion of a previously sensitive strain to a resistant one. This concept is not supported by any experimental evidence. All available evidence indicates that the appearance of strains resistant to the antibacterial action of a given substance is a consequence of the inhomogeneity of large populations of bacteria. In such populations, resistant mutants spontaneously appear as a matter of chance. Because of this, the frequency with which mutants will appear in any given population cannot be predicted; but the frequency with which mutant cells resistant to a particular antibiotic arise in a given culture can be determined. Determinations of this nature have shown that mutant cells arise at the rate of 1 out of 10 million to 1 out of trillion cells per generation. This rate does not seem negligible when one recalls that a typical colony of **Es. coli** on a solid medium may contain more than $3^1/_2$ billion cells. Nevertheless, the magnitude of the mutation rate is sufficiently small to suggest that in infected patients, the emergence of resistant strains of bacteria will be less likely to occur following early treatment with adequate amounts of a chemotherapeutic agent than when treatment is delayed or continued with too little of the chosen remedy. This conclusion is amply justified by clinical experience.

Resistant strains of bacteria appear to differ from sensitive strains primarily in forming alterna-

tive pathways of metabolism which enable them to continue life even though the conduct of certain metabolic reactions is inhibited by contact with an antibiotic. Thus some penicillin-resistant strains have been shown to undergo combination with radioactive penicillin, although the amount of the antibiotic bound per unit mass of cells is definitely less than in the case of more sensitive strains of the same species. Streptomycin-resistant strains of **E. coli** are unable to effect the complete oxidation of pyruvic and oxalacetic acids, even in the absence of the antibiotic. In this respect these strains differ from streptomycin-sensitive strains of some species. From this it appears that streptomycin-resistant organisms utilize pyruvic acid by a mechanism different from that employed by sensitive strains. Thus, it would seem that, just as chance determines the overall appearance of mutant cells in a culture, it is chance that determines that the life processes of some of the mutants should depend upon processes not involving systems inhibited by chemical combination with particular antibiotics.

In the foregoing we have attempted to summarize and integrate our present knowledge of the mechanism of action of the antibiotics and of some related chemotherapeutic agents. The limitations of space have precluded the inclusion of much ancillary material of interest, but I hope sufficient has been included to show the trend of investigation in this field. As we learn more of the intricacies of bacterial metabolism we shall learn more of the details of the mechanism of action of the antibiotics, and as we learn more about the latter, we cannot escape learning more about the former.

NOTE—Bibliography omitted because of space requirements.

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WHAT'S NEW IN OBSTETRICS AND GYNECOLOGY*

JOHN WALTER JONES, M.D., Texarkana

In discussing what is new in obstetrics and gynecology I hope that what I am presenting will be new to you as well as to me. I know too that there is a lot of the old that is new to me. I am sure Doctor Brown would find that he could tell us a lot of things he teaches his students every day that would be new to many of us even though they are old to those of his department.

My endeavor, however, shall be to tell you the things which I have gleaned from the recent literature which are new to me, and which have, for the most part, been received by those to whom they were presented as new, and which I believe will be new to the most of you. I cannot vouch for the truth of what is presented. As you well know, it may take years to verify or disprove what is new today.

I think it might be well to begin with some of the advancements in the pre-clinical fields which have application to our specialty. Klink, in an anatomical and clinical study in the female, finds that the pudendal nerve innervates the whole of the perineum, including the clitoris, the labia, and the perineal body; and if a novocaine block is done at the main trunk of the nerve, complete anesthesia in its area of distribution is produced. No other nerve blocking or infiltration is necessary for delivery. No vasoconstrictor or dispersing action drugs are necessary. His studies reveal that the innervation of the vagina is visceral in origin and is completely separate from the pudendal nerve.

Perhaps most of you were taught that the embryological origin of the vaginal mucosa was from the Muellerian ducts. The lowermost portion of the vaginal mucosa, perhaps about the lower one-fifth, was thought to originate from the invasion of the vagina by cells from the urogenital sinus. However, as a result of the studies of Robert Meyer, it seems clear that this is not so, but that the entire vaginal mucosa including the squamous covering of the cervix originates from the urogenital sinus. The hymen then marks the meeting point of the fused Muellerian ducts of the vaginal wall with the urogenital sinus, and the squamo-columnar epithelial junction of the cervix the meeting point of the Muellerian duct epithelium with that of the urogenital sinus.

McKay, Hertig, and Hickey, in a report on the histogenesis of certain ovarian tumors, speculate that granulosa cell tumors arise from abnormally persistent granulosa cells in atretic follicles. They surmise this sequence of events: The ovum disintegrates, the follicle becomes atretic, luteinization of the theca and the stroma tissues occur, and finally granulosa cell tumors appear. They think that it is possible that in humans as well as animals the formation of granulosa cell tumors may be precipitated by Roentgen ray irradiation. They discuss a change in the aging ovary, referred

* Read before Seventy-seventh Annual Session, Arkansas Medical Society, Little Rock, April 22, 1953.

to as cortical stromal hyperplasia, which is a nodular thickening of the ovarian cortex, accompanied by diminution in the number of ova and follicles. They point to work which shows that this condition is invariably present in the opposite ovary in case of the coma, and postulate that it is the point of origin of the thecomal tumor.

The newly recognized hilus cell neoplasm are among the masculizing tumors found in the ovary. It has been known for some time that in the hilum of the ovary, near the reti ovarii, groups of large polyhedral cells may occur. These hilus cells are now taken to be homologues of the interstitial or Leydig cells of the testes. Six tumors have been described as arising from these cells, all producing masculizing syndromes which regressed with removal of the tumor. Although they are quite rare, it seems that these tumors have been overlooked in the past.

Roberts points out that circulatory collapse or primary shock in late pregnancy may be initiated or aggravated by changes to the dorsal recumbent position, and can be relieved and treated by change from that position. Patients often prefer to lie on their sides when in hard labor, but emptying the uterus seems to change this positional preference. Roberts believes the pressure of the uterus on the abdominal veins raises the venous pressure caudally, with a fall in the pressure in the right auricle giving the above-mentioned symptoms.

Hingson and Helman, in discussing obstetrical anesthesias, stress the importance of the obstetrical patient having an empty stomach at the time she is given her anesthetic. When your patient calls you that she is in labor or her bag of waters has ruptured, that is the time to start preparing her for anesthesia. Be sure to tell her **then** not to eat anything before she goes to the hospital. It is also important that the obstetrician know the major incompatibilities of the vasopressors, oxytocics, and anesthetics used. For example, pituitrin after cyclopropane may precipitate ventricular fibrillation. Intravenous ergotrate given too soon after intravenous vasopressors may bring on dangerous elevations of blood pressure and even cerebral hemorrhage.

Among the newer diagnostic procedures to be carried out by the gynecologist is culdoscopy, a procedure by which visualization of the pelvic organs through a telescopic optical instrument passed through the punctured posterior fornix, with the patient in the knee-chest position, is carried out. The proper positioning of the patient is of utmost importance. The procedure is carried out under local or saddle-block anesthesia. Its contraindications are: intact hymen, inadequate vagina, acute vaginal infections, or a fixed mass in the culdesac when the patient is in the knee-chest position. It is of special diagnostic importance in ectopic pregnancy, endometriosis, sterility—especially when surgical correction is anticipated, pelvic tuberculosis, and in various obscure pelvic conditions. Besides visualizing the internal genital organs, biopsy, smear, culture, and cytology studies may be carried out, ascitic fluid aspirated; and pneumoperitoneum may be induced. It is not a procedure in general use but probably will have considerable usefulness in the hands of the specialists in this field.

The Richardson pregnancy test, which is supposed to depend on the presence of free estrone in the urine, has been found not sufficiently specific for general use in the diagnosis of early pregnancy. Fisher and McColgan found that, using the Merkel modification of this test, urine specimens run on successive days did not agree in over one-third of the cases. They found further that its total accuracy was not over 47%. Stimmel's studies indicate that the free estrone in the urine is too low in early pregnancy to give a satisfactory color reaction until the tenth week at least. Its value certainly does not compare at present with the male frog test. However, Sobel and Edelman found that urine from jaundiced patients often gives false positive Mainini tests for pregnancy. It would seem, then, that one should remember this and should not put too much faith in a positive Mainini test in a patient who is jaundiced.

Geneticists have long emphasized that maleness and femaleness, so far as chromosome content is concerned, are projected from the fertilized ovum into the morphologically and functionally specialized somatic cells. The sex of a highly differentiated somatic cell, like the neuron, may be detected by tissue staining and examining under the microscopic. Barr and Bertram claim to be able to differentiate the neurones of female cats from those of males. A similar sex differentiation in nuclear morphology is supposed to be made out in the sympathetic nerve cells of man. The difference in the nuclear morphology is due to the sex chromosomes. Barr is now using skin biopsies in a study of intersexes. This study is still in progress. If you have any patients, either children or adults, with sex aberration or pseudohermaphroditism, you are urged to send a skin biopsy to Dr. M. L. Barr, Department of Anatomy, University of Western Ontario, London, Canada. For the pseudohermaphrodite, it does not follow that they should be forced to live as the sex their chromosomes or reproductive organs show them to be. The tendency now is to treat or operate

them in order to assist them to live as the sex they prefer or feel inclined to live.

Tager has described a new X-ray sign of fetal death. To demonstrate this sign, two roentgenograms are taken—first an AP projection with the patient lying on her back, then the same view with the patient erect. Fetal death is verified if there is a complete collapse of the fetal spine on the erect view, with no abnormalities noted on the reclining view.

Allen Palmer finds Lipiodal F, a medium one-fifth as viscous as regular lipiodal, superior to all other radio-opaque media for hysterosalpingography. X-ray films are as clear as those taken with regular lipiodal, and the contrast is better defined than with aqueous media. He found it completely absorbed from the peritoneal cavity in three to four months, save for an occasional minute droplet in the pelvis.

Doctor Thiersch has studied the effect of a Folic acid antagonist, 4 Amino-pteroylglutamic acid, administered orally to 12 patients with indications for therapeutic abortion, such as cancer, tuberculosis, etc. In ten fetal death and spontaneous abortion occurred in five to thirty days. In two the uterus was evacuated surgically, and in both live malformed fetuses were detected. This mode of inducing abortion will no doubt be taken up by the abortionists. We should know something of its action, since its use and abuse are to be expected. We should also be aware of its ability to produce defective infants and monsters.

Eckenhoff, et al., have shown that a new synthetic drug, N-alyl normorphine, when given intravenously to mothers before delivery, antagonizes the respiratory and circulatory depression produced by morphine, meperidine, and other opiates but not the depressing effect of other drugs. The drug can also be given into the umbilical vein of the infants who are apneic.

Zondek, et al., have described an anterior pituitary hyperhormonic syndrome in which three hormonotrophins are overproduced in the anterior pituitary, namely the gonadotrophic, lactotrophic, and thyreotrophic hormones. The symptoms noted are: 1. Excessive uterine bleeding of a completely irregular type, extending over a period of months or years; 2. Galactorrhea (non-puerperal), generally profuse, and involving both breasts; 3. Thyreotoxic symptoms. In some patients there is noticed decreased blood sugar (indicating hyperinsulinism?), secondary anemia, secondary sterility and nervous symptoms. Five cases are reported in their article. The endometrium was found to be of the Swiss cheese type. The ovaries were enlarged and palpable. The breasts were hyperpigmented. There was exophthalmus, weight loss, elevated basal metabolic rate, and subfebrile temperatures.

Torpin reports a new syndrome in labor. It consists of a frank breech presentation, persistent sacroanterior position, with an associated dystocia. Dystocia or abnormal early labor in a breech calls for X-rays. On them it is noted that the breech is frank, with the back anterior, and with one foot on each side of the mother's spinal column. The condition occurs especially in primipara.

After having performed total linear salpingostomy experimentally in dogs and observing complete healing without any scar within eight weeks, S. L. Isreal then performed this operation on eight patients because of accidentally encountered acute suppurative salpingitis, seven of whom had gonorrheal and one tuberculous salpingitis. Four of the eight then subsequently delivered one or more children. He believes this method exposes and drains the endosalpinx and conserves the tube.

Adler and Makris report the first case of artificial insemination with subsequent pregnancy and delivery in a woman whose husband had aspermia. Testicular biopsy was taken from the husband, an emulsion was made in Ringer's solution which showed active spermatazoa. This was then inseminated in the usual way in the wife, and fertilization with pregnancy and delivery of a healthy baby followed.

Collins, et al., point out the efficiency of tracheotomy in maintaining efficient aeration of the lungs in unconscious patients. They find it useful in eclamptic patients who are suspected of cardiovascular accident if respiratory distress is a prominent symptom. Aspiration of the bronchial tree is facilitated, as well as the administration of oxygen.

McChesney, et al., in discussing the use of Ion Exchange Resins in edema, state that the use of these substances results in an increased excretion of sodium, potassium, and perhaps a small amount of calcium in the stool. The optimum daily dose seems to be between 40 and 100 grams. In all cases a compensated acidosis of some degree will result. The most probable complication is potassium deficiency. In fact, these substances may be used for the specific purpose of withdrawing or withholding potassium from the body in renal insufficiency associated with oliguria or anuria. These substances are especially useful in fluid retention of pregnancy and in pre-eclampsia, particularly in those patients who refuse to or cannot adhere to a low sodium diet. Alvarez and Richards find mercuhydrin intravenously to be a most effective diuretic in toxemia of pregnancy.

The safety of tub baths, as well as their comfort and time-saving attributes, in postpartum perineal care have been stressed by Hodgson and Day.

Recently Allen and his associates reported the presence of an inhibitor to blood clotting in certain hemorrhagic states. This substance could be neutralized in vivo and in vitro by protamine sulfate and toluidine blue. Rumbolz, et al., found that in some patients with menorrhagia, but without evidence of pelvic pathology, this substance could be demonstrated in the blood at the time of menstruation by the relatively simple protamine titration test. When there was abnormal uterine bleeding with an elevated titration, treatment with intramuscular protamine sulfate or oral toluidine blue resulted in correction of the abnormal bleeding in most cases.

Smith and Smith treated patients with preeclamptic toxemina which was progressing in spite of the usual treatment with large doses of penicillin and/or terramycin. They noted a rapid reduction in albuminuria, onset of diuresis, and relief of subjective symptoms but a considerably less response in blood pressure. The beneficial effects were limited to the mother. They believe these drugs neutralize or eliminate a circulating toxin, that they help control but do not cure the toxemia.

Bechtold and Reicher find chronic trichomonad infections, especially when entrenched in the endocervix, the greatest single cause of difficulty in differentiating benign atypical from true cervical neoplasms. They find basal cell changes in these infections that can scarcely be distinguished from malignant cells.

In this connection it might be mentioned that Wespi interprets intraepithelial carcinoma as a special kind of disease which occurs mostly under the age of 50 and is related to sexual function.

Davis, et al., have tried ACTH in the therapy of secondary amenorrhea and found it of no value. Kohler and Munich were able to produce menstruation in postmenopausal women with desoxycorticosterone acetate. This should be considered in postmenopausal bleeding if there is a history of the drug having been used.

Sir Bernard Dawson, reporting on the Australian experiment to prevent eclampsia, reports an incidence of one case of eclampsia in 9,000 deliveries under the present regime which has been in force for the past three years. The greatest possible vigilance in antenatal care, immediate hospitalization at the earliest signs of toxemia of pregnancy, and the induction of labor if it is not controlled, constitute the essentials of the regime. The accent is on the early diagnosis and treatment with the conviction that albuminuria in a catheterized specimen is a late sign of toxemia and that control must commence before its appearance.

In summary, I would like to point out the present tendency to stress the early diagnosis and treatment of diseases in our specialty. The cytological smears for precancerous lesions, as well as for cancer; culdoscopic examination for the early diagnosis of obscure pelvic lesions, ectopic pregnancy, and endometriosis; and the earliest possible suspection and treatment of pregnancy toxemias seem to demonstrate the pattern of this concept.

NOTE—Bibliography omitted because of space requirements.

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RECENT TRENDS IN GENERAL SURGERY*

JAMES H. GROWDON, M.D., Little Rock

The remarks of this presentation shall be largely confined to a consideration of the gastro-intestinal tract since previous papers have already dealt with other systems in some detail.

In diseases of this system nutrition is often disturbed and the oral route cannot be used to correct deficiencies or to meet daily maintenance requirements. It still remains virtually impossible to satisfactorily maintain a patient over long periods of time or to correct chronic nutritional deficits, particularly protein, by parenteral feeding alone. This is particularly true in patients having malignant neoplasms. However, an attempt to supply as nearly a normal caloric and nitrogen intake as possible is obvious.

The use of fructose or of invert sugar for parenteral administration seems to have a number of advantages over glucose. Invert sugar contains equal quantities of glucose and fructose. Its advantage lies largely in its fructose content and the apparent ease of phosphorylation of the latter in

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the liver. The use of this sugar parenterally in the human has been studied intensively the last few years. Fructose is a readier source of energy in that it is removed from the blood more rapidly, is more rapidly metabolized and induces more rapid glycogenesis. Much less sugar is lost in the urine in spite of the lower renal threshold of fructose. The diuresis and consequent dehydrating effects of glucose, especially 10% solutions, can be avoided. More recently it has been shown that fructose has a superior nitrogen sparing action when compared to glucose and that in the immediate post-operative period fructose utilization is not appreciably affected whereas glucose utilization is impaired by surgical trauma or anesthesia. It would seem that 10% fructose or invert sugar solutions could profitably replace in many instances the present 5% dextrose solution as a routine parenteral source of carbohydrate. A liter of such a solution can be given with the same rapidity and contains twice as many calories.

It is now well recognized that the malnourished patient has a reduced blood volume and is susceptible to surgical shock which should be corrected by the administration of whole blood preoperatively. Estimates of this deficit can be made using the Evans blue dye method. Bigelow and co-workers have pointed out that deficits as much as 50% may exist and that this can be correlated with weight lost. In 25 of their cases there was a 50 cc. blood deficit per pound of body weight lost. Zollinger, et al., in general substantiate these findings and show that deficits often exist in minor conditions of the gastro-intestinal tract where they would not have been suspected. In the latter studies radioactive iodinated serum albumin was used in determining blood volume. This method was believed to be superior to the Evans blue. It can be used in jaundiced patients and permits repeated studies without radiation hazard or skin discoloration.

An interesting observation made by Coller and co-workers is that the administration of testosterone propionate preoperatively may protect the poor risk patient from liver damage related to anesthesia and surgical trauma. The liver of such a patient is depleted of glycogen and protein stores making it susceptible to such injury. Testosterone aids in correcting these deficits preoperatively so that the liver is better able to resist these insults.

Intra-oral cancer in its management requires close cooperation between the surgeon and radiologist. At times either surgery or radiation or a combination of these methods may be necessary. Radiation therapy alone becomes ineffective when there is bone or lymph node involvement. On this account and because local lesions may be radioresistant there is a growing tendency to extend surgical methods in the treatment of intra-oral lesions particularly those involving the tongue, floor of mouth or lower gingiva. An en bloc resection of the local lesion and the regional lymphatics is accomplished with or without resection of the mandible on the affected side. Mandibular resection is required because of bone involvement and the fact that lymphatic channels pass through the periosteum of the mandible. The postoperative deformity is often surprisingly slight. Surgical treatment is well established as the preferred method in nearly all cases presenting metastatic lymph nodes in the neck. With few exceptions a complete neck dissection is indicated rather than a limited procedure such as an upper or supra-omohyoid resection.

The recent publications of Sweet and of Allison and of others have aided in elucidating the problems of hiatus hernia. Most of the previously considered congenitally short esophagae are truly not short and the herniation of the stomach into the chest which accompanies them can and should be repaired. In Sweet's series of 87 patients which had a congenitally short esophagus on radiographic examination, it was found at operation that only four were truly short esophagae so that the stomach could not be drawn below the diaphragm. Sweet prefers to classify these cases as a sliding hernia type rather than the old terminology of short esophagus. Here the hernia occurs through the hiatus. The anterior wall of the stomach comprises the posterior wall of the hernial sac with the anterior and lateral walls of the sac formed by the parietal peritoneum which follows the stomach upward. This allows, as pointed out by Allison, the regurgitation of gastric contents and the formation with resultant symptoms of esophagitis. The sensitivity of the esophageal mucosa to acid peptic regurgitation has been emphasized by Wangensteen. This esophagitis may ultimately result in ulceration with scar or stricture formation. In the repair of these hernias Allison has pointed out the important part that the right crus of the diaphragm plays in the formation of hiatus sphincter action. The contraction of the fibers of the right crus of the diaphragm which split to form the hiatus along with a few fibers from the left crus, constitutes the most important sphincter action at the cardia. Their contraction compresses the cardio-esophageal junction and increases the angulation of the stomach to the left and forward as it passes through the diaphragm. Loose approximation of these fibers posterior to

the esophagus as it passes through the hiatus is considered the most essential factor in restoring this mechanism. The second type of hiatal hernia which has formerly been called para-esophageal is given the preferred name of parahiatal hernia by Sweet. Here the cardia remains below the diaphragm and the esophagus retains its length. The fundus and greater curvature of the stomach herniate into the chest with the greater curvature tilted upward and in extreme cases may give the appearance of the stomach being upside down. The defect rather than being para-esophageal through the hiatus is actually parahiatal in that a small strand of tissue intervenes between the sac and the cardio-esophageal junction holding the latter in its anatomical position. Because of this fact regurgitation does not occur and symptoms of esophagitis are not present although ulceration with subsequent bleeding may occur in the herniated stomach. Other gastro-intestinal or cardio-respiratory symptoms may be present. It is this latter variety of hernia that has been in the past considered amenable to surgical therapy.

Occasionally there may be a composite type of these two hernias and sometimes, though relatively small in Sweet's series, a true short esophagus. Of course, after esophagitis with stricture formation and scarring the esophagus truely becomes short so that a simple hernial repair cannot be performed and resection of the stricture will be necessary. Inasmuch as all these hernias are potentially dangerous, one should not hesitate to offer surgical repair as has often been the case in the past, particularly with a so-called congenital short esophagus. Early repair will prevent complications which necessitate a more extensive and often less efficacious procedure being necessary as stenosis develops following esophagitis.

Because of regurgitation of gastric contents and resulting esophagitis with hemorrhages, operative procedures which utilize anastomosis of the lower esophagus to the cardia should be avoided if possible. This is particularly true of the Heineke-Mikulicz or modified Finney type (Heyrovsky-Grondahl) of plastic procedures performed in achalasia. Achalasia and mega-esophagus may be related to megacolon in that it has been shown that here also there may be a reduction or absence of ganglion cells in Auerbachs plexus. In the early stages of this condition where permanent scar and stricture formation have not made a resection necessary, the Heller procedure has been revived as the method of choice where conservative dilatation has failed. In this operation the muscle fibers of the terminal esophagus and cardia are separated longitudinally down to the mucosa much as is done in a Fredet-Ramstedt operation for pyloric stenosis. Regurgitation of gastric contents is lessened or prevented. One should recognize that this is a revival of a procedure previously discarded and which may well again prove not to be entirely satisfactory.

While most surgeons still prefer to perform a subtotal gastric resection for low lying carcinomas of the stomach, total resection is being performed much more frequently than in the past. Mortality rates of less than 10% are now being reported. There are conflicting opinions as to the necessity for removing the entire stomach in all cases of carcinoma. It will be some time before this problem can be resolved. The importance of removing as much of the duodenum as is possible, particularly in low lying lesions, is recognized. The infiltration of carcinoma does not stop at the junction of duodenum as has been considered to be the case in past years.

Because of the high incidence of mistaken diagnosis in lesions that are presumed to be benign gastric ulcerations surgical therapy should be promptly instituted if the lesion does not completely heal and remain so within a short period of observation on medical management. We have allowed two to four weeks for this evaluation.

In the definitive treatment of duodenal ulcer the swing of the pendulum away from vagotomy following the initial wave of enthusiasm for this procedure which swept the country several years ago has resulted in most surgeons accepting subtotal gastric resection as the treatment of choice. Perhaps the pendulum has swung a bit too far. While the period of follow-up has not been long enough to accurately evaluate the procedure recent reports of Pollard, et al. Grimson and Rhode and Crile on vagotomy plus gastro-enterostomy indicate that in some hands at least this procedure is as effective and is associated with less mortality than is gastric resection.

Where gastric resection is performed as definitive therapy for duodenal ulcer there has been recent enthusiasm to revert back to the Billroth I type of resection where the stomach is anastomosed to the stump of the duodenum. There are a number of physiological advantages to this type of anastomosis which have been summarized by Harkins.

Definitive surgical therapy (subtotal gastric resection) is being considered more often in ruptured peptic ulcer. While it was formerly held that a perforated ulcer, following closure, would often heal and give no further symptoms, the reverse seems to be true. Within five years approximately 75% will have a relapse and up to 30%

will have required a subsequent operation. In a series reported by Turner with follow-up to 20 years in some cases 85.3% developed ulcer symptoms, 38.5% required additional surgery, recurrent perforation occurred in 8.5%, hematemesis in 19% and a massive fatal hemorrhage in 5.3%. These facts have led some to believe that the first perforation of an ulcer is an indication for a subtotal gastric resection. While resection has usually been advocated after convalescence from simple closure, there seems a growing tendency to perform resection as a definitive measure at the time of perforation. It has been shown previously in European clinics and recently in this country that gastric resection can be performed at the time of perforation with a respectable mortality rate. However, the wide spread adoption of these principles is seriously questioned. Even whether or not the results of surgical therapy are good enough to apply it in all cases having a first perforation is open to debate. Luer observed that patients having no previous symptoms were three times less likely to develop further difficulty. Substitution of a more extensive procedure for simple closure at the time of perforation when the latter probably carries an over-all mortality around the country of 5-10% is liable to invite disaster. In any given case the responsible surgeon should not forget the dictum laid down by Roscoe Graham that the prime responsibility of the surgeon in the face of an acute perforation is to save the patient's life and not to treat his ulcer.

The indications of Mikal and Morrison seem reasonable, that primary gastric resection at the time of perforation may be selected under optimal operating conditions for patients who are in good condition with an early perforation who have questionable carcinoma (gastric ulcers), pyloric obstruction, multiple ulcers or perforations, associated hemorrhage or a history of a previous perforation.

The reduction of intussusception in children by barium enema under fluoroscopic control as recently popularized in this country by Ravitch and Morgan sometimes is very gratifying. We have limited the use of this method to very early cases using extreme caution. It should be emphasized that even in their hands success was obtained in only 42 of 57 reported cases with an average duration of symptoms of 21 hours. The remainder required surgical intervention. Any undue pressure from the enema may result in perforation. While it is probably impossible to reduce an intussusception containing bad bowel in most instances, this danger exists. A misinterpretation as to having accomplished a complete reduction could prove fatal. An ileo-ileal intussusception may be reduced outside the cecum and still persist even though the cecum fills readily with barium. Maximum pressure in introducing the enema should not be more than gravity with the container held three feet above the level of the patient. Reduction is confirmed by free filling of the small bowel and cecum, disappearance of the mass, passage of feces or flatus and subsequent clinical course. This is a hospital procedure, the patient must be carefully observed for recurrence or possible misinterpretation. An obvious disadvantage to this method is that the inciting cause of the intussusception if remediable can only be recognized and corrected at surgical exploration. Abuse of the method may result in its being considered a more radical rather than a conservative approach. Present operative mortality where no gangrenous bowel is present is about nil.

There is a growing tendency to enlarge the lymph node resection in carcinoma of the left colon and rectum. This requires a hemicolectomy as has been customarily performed for similar lesions of the right colon. Sacrifice of the entire left colic artery allows a wider removal of lymph nodes in the mesentery as well as along the aorta. The ultimate benefits cannot yet be evaluated. It seems prudent to again caution against the temptation to use an anterior resection with primary anastomosis in lesions below the sigmoid. It is of no benefit to extend one's lymph node excision if a recurrence develops at the line of anastomosis of the transverse colon and rectum in attempting to save the anal sphincter. Such a case has just recently come under our observation at the University Hospital with recurrence and complete obstruction six months following the procedure.

Neomycin is the most recent addition to our armamentarium of antibiotics to sterilize the colon for surgery. This antibiotic when given orally is poorly absorbed. Nephrotoxic properties have been described in parenteral administration. Poth believes it is the best antibiotic available. No toxic reactions were encountered in 350 cases where it had been administered in some instances as long as three months. Bacteria were ordinarily eliminated from the gastro-intestinal tract within 24 hours. Poth states that neomycin is not effective against aerobacter aerogenes and advocates the addition of sulfathaladine in pre-operative preparation. A most interesting observation was that neomycin may be used in a 1% solution and instilled into the bowel at surgery when emergency operation is necessary. In such an instance

within 45 minutes specimens aspirated failed to grow bacteria.

Dextran is the newest and recent reports would indicate the best plasma substitute to become commercially available in practice. Dextran is a high molecular weight glucose polysaccharide, the molecular size being such that it fails to pass through the capillary walls. Consequently it exerts an osmotic pressure intravascularly as do the serum proteins. It is used as a 6% solution. Reactions of earlier preparations have been eliminated in the newer American product. It can be used satisfactorily with other solutions, is nonantigenic and does not interfere with future cross matching for blood transfusions. While transitory renal changes have been described there is apparently no permanent damage to kidneys or liver. Its value in catastrophes with many injuries is obvious. It may prove to be more desirable than plasma in some other instances because of its relative cheapness and elimination of the hepatitis factor. It has also been suggested that dextran may be used during operation under anesthesia to eliminate the possibility of an unrecognized transfusion reaction, whole blood being supplied later if necessary. It should be emphasized, however, that there is no substitute for whole blood with a deficiency of the cellular element. Whole blood is needed more often than plasma alone.

NOTE—Bibliography omitted because of space requirements.

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CONSTITUTIONAL AMENDMENTS

In accordance with the Constitution and for the information of the membership, the following proposed amendments to the Constitution of the Arkansas Medical Society, previously published in the Journal and read at the April, 1953, annual meeting of the Society, are reprinted herewith.

1. In Article IV (Composition of the Society), add Section 5 to read as follows:

   Military Members. Regular members of the Arkansas Medical Society who are in the service of the Armed Forces of the United States not as career officers may be classified as Military Members, and carried on the rolls of their respective County Societies, as such. Military members shall have a waiver of dues during the time of service, provided that they are in good standing at the time they entered the Armed Forces.

2. In Article V (House of Delegates) add the words "First Vice-President" after the word president. This change will make the first vice-president an ex-officio member of the House of Delegates.

3. Delete the present Article VI and substitute the following:

   The Council shall consist of the Councilors, the President, First Vice-President, President-Elect, Secretary and the Treasurer. The Speaker and Vice-Speaker of the House of Delegates, Past Presidents, and Vice Councilors shall be members ex-officio without vote. Besides its duties mentioned in the by-Laws, the Council shall constitute the Finance Committee of the House of Delegates. A majority of the voting members shall constitute a quorum, in which consideration a Vice-Councilor acts and votes as a Councilor if the Councilor is not present.

4. Change Article VIII (Sessions and Meetings), to read as follows:

   Section 1. The Society shall hold an annual session beginning the third Monday in April of each year, during which there shall be held daily general meetings, which shall be open to all registered members and guests.

   Section 2. The place for holding each annual session shall be decided by the House of Delegates.

5. (A) Article X (Funds and Expenses), correct typographical error; $5.00 should read $25.00.

   (B) Add: "New members, and Military members just returning from service, who are accepted for regular membership after July 1 of each year, are required to pay only one-half of the annual assessment."

   (C) Substitute the word "Council" for the words "Finance Committee" in the last sentence of the present second paragraph.

6. In Article XIII (Amendments), delete the words "or sent officially to each component society at least two months before the meeting at which final action is to be taken."

7. In Chapter II, Section 1 of the By-Laws delete the words "Time and." This directs the House of Delegates to set the place of meeting of the next annual session.

8. In Chapter II add: "Section 3. In the event the previously selected place is unable to be host to the annual session, the meeting place may then be designated by the Council."

9. Chapter V (Election of Officers) Add: "Section 1. (a) In the event of the death or removal of the President-Elect, the nominating committee at the next annual session shall present nominees for President and President-Elect in addition to the other officers.

10. Chapter V. Section 3, delete the last sentence and substitute the following:

    In the event of the President's inability to serve, the first vice-president shall serve in his stead.

11. Chapter VIII (Committees) Change Section 1 to read: "The standing committees of this Society shall be as follows:

1. Committee on Cancer Control.
2. Committee on Medical Legislation.
3. Committee on Public Health (Liaison with Public Health Department, Rural Health, Maternal Welfare, Tuberculosis, Heart Association, and, etc.)
4. Committee on Medical Education (Medical School and Post-Graduate work).
5. Committee on Hospitals (Blue Cross, Hospital Liaison and Arkansas Hospital Association).
6. Committee on Public Relations (Speakers Bureau, Publications & etc., Liaison with Auxiliary, Veterans Administration, Civilian Defense and etc.)
7. Committee on Scientific Work and Exhibits (Scientific Program for annual session).
8. Committee on Arrangements for Annual Session (to work with local hosts committee on annual session arrangements for hotel, golf, public gatherings, and etc.)"

Section 1 (a) Additional Committees shall be considered sub-committees of the appropriate standing committee and one member of the standing committee shall be a member of the sub-committee.

Section 1 (b) Unless otherwise provided, these committees shall be appointed by the President for three-year staggered terms. The committees shall consist of not less than six members each, with each president appointing two members for a three-year period. Any vacancies through death, removal or resignation may be filled by the President at the time the vacancy occurs and for the unexpired term of the vacancy. The President and Secretary shall be ex-officio members of all committees.

12. Insert Section 2 to read:
The Cancer Control Committee of the Arkansas Medical Society shall represent the Society in all activities concerned with cancer in the state, shall directly supervise the activities of the Cancer Control Committee of the Woman's Auxiliary to the Arkansas Medical Society and shall cooperate with all agencies within the State of Arkansas dedicated to the problem of cancer.

13. The present section "2" (Committee on Scientific Work) to be numbered Section "3." The word "six" shall be substituted for the word "three" therein.

14. Present Section "3" (Medical Legislation) to the numbered Section "4" and the first two sentences deleted, to be replaced by the words: "The committee on Medical Legislation shall represent the society in all legislative practice."

15. Present Section "4" (Committee on Health and Public Instruction) to be numbered Section "5."

16. Present Section "5" (Committee on Medical Education and Hospitals) to be numbered Section "6" and the words "and hospitals" be deleted after the words "medical education" in the first sentence. Also delete the words "hospitals and" following the words "pertaining to" in the first sentence of this section. Add words "and Post-graduate Instruction" at end of first sentence. In the second sentence of the section add the words "and Arkansas Academy of General Practice" after the words "Arkansas School of Medicine."

17. Section 7 shall read: The Committee on Hospitals shall have referred to it all questions pertaining to hospitals and their operation; hospitalization of patients, hospital and health insurance, hospital-physician relationships, and shall function as liaison with the Blue Cross-Blue Shield and Arkansas Hospital Association.

18. The present Section "6" (Committee on Public Relations) to be numbered Section "7." Add "The subcommittee on Professional Relations shall function under this committee."

19. Section "8" amended to read:
"The committee of Scientific works and Exhibits shall determine the character and scope of the scientific proceedings of each Annual Session. It shall prepare a scientific program for each annual session. It shall solicit and collect material from institutions and individual physicians of the state that is of scientific interest. This it shall arrange and exhibit at each annual session. It should particularly strive to obtain material that will more fully illustrate the papers presented in the general meetings of the society.

20. Chapter VIII, Section 9 to be amended to read: The Committee on Arrangements for the annual session shall provide suitable accommodations for the meeting places of the Society and the House of Delegates, the scientific exhibit, the committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary for publication in the program and shall make additional announcements during the session as occasion may require.

21. In Chapter IX (County Societies) Section 6, insert the words "except that" after "decision shall be final," continuing the sentence with "a county Society shall at all times, etc. In the same sentence delete the words "Council of the State Society" and substitute therefor the words "House of Delegates of the Arkansas Medical Society."

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE AGE RELATIONSHIP OF CASES OF PULMONARY TUBERCULOSIS AND THEIR ASSOCIATES

By ARTHUR B. ROBINS, M.D.

American Journal of Public Health, June, 1953

The most significant recent trend in the epidemiology of tuberculosis is the degree to which the disease is affecting older people, particularly older men. In 1932, 37 per cent of the deaths from pulmonary tuberculosis in New York City occurred in individuals 45 years and over, and 78 per cent of these deaths were among males. At this time only one-quarter of the newly reported cases of pulmonary tuberculosis developed in this age group, and less than one-fifth among older men.

By 1950, less than 20 years later, the proportion of new cases and deaths from pulmonary tuberculosis occurring in persons 45 and over had doubled. More than 65 per cent of the residents of New York City who died of the disease were 45 and over, and men were responsible for 85 per cent of these deaths. Similarly, almost half of the newly reported cases of pulmonary tuberculosis were now found in people 45 and over, and males in this age group contributed 36 per cent of all new cases.

During this same period a sharp decline in the percentage of children reacting to the tuberculin test was noted. The mortality from all forms of tuberculosis in persons under 10 years of age reached an all-time low. A major factor in these reductions was undoubtedly the decrease in tuberculous infection in the community. This decline can be attributed to the presence of fewer communicable cases of the disease, their more effective isolation, and the increased resistance of exposed individuals resulting from their improved standard of living. In addition, another possible explanation of the much sharper decline in tuberculous infection in childhood presents itself. Could fewer children under 10 have been exposed to household infection during recent years because source cases were older and less likely to have younger children living with them?

To test this hypothesis a study of the households of persons with pulmonary tuberculosis first reported in 1950 was undertaken. Only male index cases were included, since it had been demonstrated that the postponement of the age of peak morbidity and mortality from tuberculosis was due primarily to the shift toward the older ages in males. A sample of 778 cases was selected at random from the total of 3,467 men more than 25 years old with pulmonary tuberculosis reported for the first time in 1950. The results may be summarized as follows:

1. Study of representative samples of the households of males 25-44 years of age with pulmonary tuberculosis and those 45 and over, reported in New York City in 1950, reveals characteristic variations in their composition.
2. Older individuals with tuberculosis have fewer household members, and their associates are less frequently under 10 years of age, than younger persons with the disease.
3. These differences may have been a major factor in the relatively greater reduction in tuberculous infection, morbidity, and mortality in childhood over the past 20 years.
4. This factor may contribute materially to the rapid rise in the incidence of tuberculosis which occurs in adolescents and young adults.

The observations show some of the effects produced by the shift in tuberculosis morbidity to the older ages, particularly in men. As previously mentioned, the proportion of new cases reported in males 45 and over has doubled in less than a generation. Not only is pulmonary tuberculosis more frequent in older men, but it is also in a more advanced stage at the time of discovery. Fifty-six per cent of males 45 and over, compared with less than 40 per cent of men 25-44, newly reported as tuberculous in New York City in 1950, had far advanced disease at the time of report. The difference in the number of associates ex-

posed to massive infection in the households of the two groups was even greater.

As a result of these differences the risk of tuberculous infection in certain segments of the population has been materially altered. The danger of contagion has become greater for the associates of older patients, and less for the associates of younger patients of tuberculosis. This statement applies particularly to the immediate households of tuberculous individuals. Study of such households show that they vary in several important respects. Parents and siblings make up a larger proportion of the associates of male patients, 25-44 years of age, than of the associates of older men with the disease. Descendants of all ages are somewhat more frequently present in the homes of patients 45 and over. On the other hand, if consideration is given to the size of the household, a different picture is presented. Two-thirds of the older men with tuberculosis are without household associates, or list only one, presumably a spouse. By contrast, 53 per cent of the younger patients have no, or only one, household contact. The sample studied contains an average of 1.9 household associates for each male patient with tuberculosis under 45, and 1.4 household associates for each 45 and over at time of report.

The aspect of the subject of greatest interest is the age of the associates in relationship to the age of the index case. Comparison of the households of the two groups of patients indicates a marked concentration of young children in the homes of younger men with tuberculosis. When marital partners are excluded, more than 37 per cent of the associates of the younger group are under 10 years of age, which is more than twice the proportion of children found among the associates of males 45 and over. Individuals between 10 and 34 form a significantly greater part of the households of older patients, primarily as a result of the large number of 15- to 24-year olds included among them. The same trends, with minor variations, characterize the age distribution of male and female household members considered separately.

The implications of these findings in the epidemiology of tuberculosis are far-reaching. There is general agreement that the level of tuberculous infection in the community has become lower during the past 20 years as a result of the reduction in the number of communicable cases. A more rapid decrease in the extent of the tuberculosis problem in children has also been noted, but no adequate explanation for it has been advanced. This study would suggest that the relationship between the age of household associates and tuberculosis may be the major factor responsible.

It has been demonstrated that a selective reduction in the opportunities for exposure of young children accompanies the aging of the tuberculous population. Its superimposition on the universal drop in infection could readily account for the phenomenal recent decline in the percentage of tuberculin reactors under 10 years of age. The same influence would also lead to a relatively increased risk from tuberculosis among adolescents and young adults. Having escaped contact with the tubercle bacillus in childhood, they would be more apt to encounter it for the first time between 10 and 34. The sharp rise in the incidence of new cases characteristic of this age group may well be a reflection of the greater morbidity which follows the resulting primary infections in adult life. There is reason to believe that the relationship between the age of associates and tuberculosis will be a factor of growing importance in tuberculosis.

★ Editorial ★

THE MONTH IN WASHINGTON

WASHINGTON OFFICE, AMERICAN MEDICAL ASSOCIATION

The second session of the 83rd Congress is getting down to its task under conditions that could mean passage of considerable legislation of importance to medicine. Holding over from last session, or certain to be introduced this year, are bills touching on virtually every phase of medicine where the federal government could become involved. New laws are being proposed on veterans' care, social security, national health plans, care of military dependents, medical scholarships for military personnel, and many other subjects.

What will be done with this mass of legislation depends on an administration whose control over Congress is tenuous and a Congress looking forward to the fall, when all members of the House and one-third of the Senate must be elected or reelected. As is the case every two years, most lawmakers will be listening closely to what's being said back home.

Awaiting congressional action is the administration's plan for extending the social security system to bring more than 10,000,000 additional persons, including physicians, under Old Age and Survivors Insurance (OASI). This legislation is known to have less support in the House Ways and Means Committee, where it is being handled, than it has in the Executive Branch.

American Medical Association, supported by dentists, lawyers, farmers, and many other groups of self-employed, has consistently opposed inclusion under OASI. The question now is whether this opposition will be articulate enough to convince Congress.

In place of social security for physicians, the AMA for several years has actively promoted legislation identified first as Reed-Keogh, then as Jenkins-Keogh, named for the sponsoring congressmen. This would allow physicians and other self-employed to defer income tax payments on a portion of their income, placed in restricted pension funds, obtainable in the form of benefits only in case of disability or at the specified retirement age. In this effort the physicians again are joined by a large group of associations representing the self-employed.

Other possible amendments to the social security law involve total and permanent disability payments and waiver of OASI premiums for the disabled, so their final pensions won't be reduced because of periods when they had little or no income. In each of these, medical determinations would be required. In the past, these bills have threatened an expansion of the federal medical program, have laid out an unreasonable role for the physician, or have called for compulsory rehabilitation. While not opposed to the objectives, AMA has urged that both the patient and the physician be protected. In place of waiver of premium, the AMA proposes that pension rates be based on the 10 best earning years, thus obviating the need for medical determinations.

As in other sessions, Congress this year probably will be asked to pass legislation providing free hospitalization under OASI for all persons past 65 covered by OASI, and for other beneficiaries of the program. In other years Congress has not taken this idea seriously.

The veterans program is certain to provoke action. Last November, Veterans Administration amended its forms to require more financial information from veterans applying for hospitalization of non-service connected disabilities, who must state that they cannot afford private care. Congress may want to further clarify the government's obligation to veterans. It is expected also that special effort will be made to expand medical benefits for veterans by such methods as increasing the periods in which certain diseases may be presumed to be of service origin.

AMA's position on the care of non-service connected cases is well known. It consists of three points. First, the best possible care by VA for actual service-connected cases. Second — until local and state facilities are adequate—VA care for long-term tuberculosis and neurological cases when the veteran himself can't pay. Third, all other non-service connected cases to be the responsibility of the veteran himself, his family, or his community.

The Defense Department has served notice that this session it will press hard for implementation

of the Moulton Commission's recommendations for broadening the medical care program for military dependents. The Commission favored caring for as many dependents as possible at military installations, with the others receiving private care and the federal government paying all but a token of the cost. At its December meeting, the AMA's House of Delegates proposed that in this country the military provide medical care for dependents only where private facilities are not adequate.

Also up for decision this year is a Defense Department's proposal that the federal government furnish medical, dental and nursing scholarships, with the recipients obligated for government service at the rate of one year for every year of the scholarship.

There is a strong possibility of pressure to enact a program under which the federal government would in one way or another subsidize private health insurance plans. The idea is known to interest Rep. Charles Wolverton (R., N. J.), chairman of the House Interstate and Foreign Commerce Committee, which last fall conducted a series of hearings on health matters. Senators Ives (R., N. Y.) and Flanders (R., Vt.) are offering a bill along the same lines in the Senate.

The controversial Bricker resolution holds over from the last session, and may receive early consideration in the Senate. Senator Bricker believes that Congress should have some check on the President's treaty-making powers. The American Medical Association repeatedly has indorsed the Bricker resolution as a safeguard against the introduction into this country by treaty of government-controlled medical plans without Congress itself having a chance to pass on them.

Awaited with interest in Washington are the findings of two Commissions appointed last year to look into the relationships between the federal government on the one hand and state and local governments on the other, and to investigate operations of the executive branch. The former is headed by Clarence Manion and the latter by former President Hoover. The Hoover Commission has until next year to make its report. The Manion Commission was instructed to have a report ready by March, but it may ask for more time.

ROUNDUP STORY ON HOUSE OF DELEGATES

AMERICAN MEDICAL ASSSOCIATION, SEVENTH ANNUAL CLINICAL MEETING DECEMBER 1-4, 1953, ST. LOUIS*

The House of Delegates of the American Medical Association, meeting at the Jefferson Hotel in St. Louis during the Seventh Annual Clinical Session took important policy actions on social security, voluntary health insurance, medical ethics and unethical practices, medical education, hospital accreditation, military affairs and a wide variety of subjects affecting both physicians and the public.

Highlight of the opening House session on Tuesday was the announcement that Dr. Joseph I. Greenwell of New Haven, Kentucky, had been selected by a special committee of the A.M.A. Board of Trustees as the 1953 "General Practitioner of the Year." The annual medal and citation for community service by a family physician were presented to Dr. Greenwell by Dr. Edward J. McCormick of Toledo, Ohio, president of the American Medical Association, who also addressed the opening session.

The Tuesday program also included addresses by Dr. James R. Reuling of Bayside, New York, speaker of the House of Delegates, and Dr. Chester Keefer of Boston, special assistant to Mrs. Oveta Culp Hobby, United States Secretary of Health, Education and Welfare. Annual reports were presented by Dr. George F. Lull, secretary and general manager of the A.M.A.; Dr. Dwight H. Murray of Napa, Calif., chairman of the Board of Trustees, and by the standing and special committees of the House of Delegates.

Approving a recommendation by its Reference Committee on Legislation and Public Relations, the House passed a resolution reaffirming its opposition to the compulsory coverage of physicians under the Old Age and Survivors Insurance provisions of the Social Security Act and advocating passage of the Jenkins-Keogh bills now pending in Congress. These bills were described as providing for "the development of a voluntary pension program which is equitable, free from

* From The Secretary's Office, American Medical Association, Seventh Annual Clinical Meeting.

compulsion, and satisfies the retirement needs of physicians."

The reference committee report adopted by the House said:

"The purpose of these bills is to eliminate the discrimination, and inequities which exist under present tax laws by extending the tax deferment privilege to the country's ten million self-employed and also to millions of employees who are not covered by pension plans. The purpose of the resolution is to reaffirm our support of the voluntary pension program provided in the Jenkins-Keogh bills and to reaffirm our strong opposition to the extension of compulsory coverage of physicians and other self-employed persons under Title II of the Social Security Act."

The same committee report urged continued action to obtain passage of the Bricker Amendment (S.J. Res. 1) and approved the principle of legislation which would reduce or remove the limitation on the deduction of medical and dental expenses for income tax purposes. It also opposed any further extension of the "Doctor Draft" Law beyond the present expiration date of June 30, 1955.

The report said that "your Committee feels strongly that there should be no further extension of the 'Doctor Draft' Law. We feel that the legislation is discriminatory and urge the Committee on Legislation and the Board of Trustees to actively oppose any further extension."

The House acted to accelerate the development of voluntary health insurance by passing a resolution requesting the Council on Medical Service to proceed immediately with a special study of the problems of catastrophic coverage and coverage for retired persons. The Council was asked to present its findings and recommendations to the House not later than the 1954 Clinical Meeting. The resolution pointed out:

"There are two large groups of citizens for whom improved coverage could be offered under present prepaid medical care plans, namely: (a) those individuals who suffer catastrophic or long-continued and highly expensive illness and whose financial resources are not adequate to meet the cost thereof and (b) those citizens who have retired and are living on small incomes and who are not eligible under presently existing public or private plans."

The resolution emphasized the medical profession's "responsibility to make every effort to promote such prepaid medical coverage for all citizens whose circumstances make them eligible."

Another resolution on voluntary health insurance, adjudged to be emergency business by the Reference Committee on Insurance and Medical Service and then passed by the House, stated that "the American Medical Association condemns all insurance contracts which classify any medical service as a hospital service." The resolution reaffirmed previous actions of the House defining pathology, radiology, anesthesiology and physiatry as medical services.

A second emergency resolution, which would have endorsed the principle of federally subsidized scholarships for prospective military personnel in order to encourage the building up of a career-basis medical corps for the armed forces, was referred by the House to the Board of Trustees for study and action.

A resolution introduced by the Iowa State Medical Society, calling for approval of a joint-billing procedure involving services rendered by two or more physicians, was referred to the Judicial Council, at the suggestion of the Reference Committee on Miscellaneous Business, with the recommendation "that the Judicial Council investigate the factors involved in the matter as presented and determine if there are new factors or new facets that would cause it to change the opinion" determined in 1952.

The House approved a revision of one section of the Principles of Medical Ethics of the A.M.A. which clarifies the relationship of physicians to all forms of public information media. The revision had been worked out by the Council on Constitution and By-Laws.

In an effort to solve the publicity problems resulting from unethical practices by a small minority of doctors, the House referred to the Board of Trustees a resolution calling for appointment of a special committee with broad professional representation to study all aspects of the problems. The Board was asked to study and implement the intent of the resolution and to report its findings to the House at the June, 1954, meeting in San Francisco.

To clarify misunderstandings among physicians regarding the rules and regulations of the Joint Commission on Accreditation of Hospitals, especially as they concern the role of the Department of General Practice in a hospital, the House adopted the following resolution:

"That this House of Delegates of the American Medical Association request the Joint Commission on Accreditation of Hospitals to publish an article, or series of articles, in the Journal of the

American Medical Association and other official publications circulating among the medical and hospital professions, to acquaint the medical-hospital profession with the regulations, by-laws and their interpretations, and

"That the Commission clarify the methods by which an aggrieved hospital or its staff may appeal a decision with which they are not in agreement."

In the field of medical education the House was "pleased to note" that a fourth grant of $500,000 had been made by the American Medical Association to the American Medical Education Foundation for financial aid to the nation's medical schools. The Foundation reported that its 1953 income now totals $1,174,000 and that the number of contributors now is more than double the total in 1952.

Dr. Louis H. Bauer, of New York, immediate past president of the A.M.A., was elected president of the Foundation just prior to the opening of the A.M.A. Clinical Session. He succeeds the late Dr. Elmer L. Henderson of Louisville, also an A.M.A. past president.

At the opening session of the House, Dr. McCormick in his presidential address made a strong appeal to the nation's physicians for "action that will further the full confidence of the public in our profession."

"Good public opinion cannot be bought," he declared. "It must be earned through exemplary conduct and genuine service in the public interest. Whatever money the A.M.A. and its constituent societies spend for public education and public relations is wasted unless individual physicians take wholehearted interest in assuring the success of these ventures."

Dr. Reuling, emphasizing that much serious work remains to be done, warned that "times are just as troubled as when we had blanket bills before Congress which would have socialized the practice of medicine."

Dr. Keefer told the House that "the voluntary way has been the most successful in the past and there is no reason to believe it will not continue to be in the future." He urged maximum effort, cooperation and leadership on the community level.

Just prior to the Clinical Meeting the Joseph Goldberger award for outstanding contributions in the field of clinical nutrition was presented to Dr. James Somerville McLester of Birmingham, Alabama, a practicing physician for more than 50 years. The award was presented by the A.M.A. through its Council on Foods and Nutrition.

Final registration at the St. Louis Clinical Session was expected to total approximately 7,500, including about 2,700 physicians.

THE JOB OF THE INDIVIDUAL PHYSICIAN

FOUNT RICHARDSON, M.D., Fayetteville

Through a span of some twenty-five years this observer has seen changes in medical society organizations that are not always easy to interpret. Large, strong, and active medical societies have had serious lapses of strength and effectiveness. Some state societies have shown firm and progressive leadership and others have seemed to drop from the scene. Arkansas has contributed generously to the influence of the American Medical Association through its elected delegates. Names like Shuffield, Brooksher, Robins, Rhinehart, have made Arkansas' influence felt for more than a decade.

Some county societies have run the gamut of from considerable influence to none. Some have maintained a steady degree of influence without much fluctuation. We believe the answer is in the individual leadership and in the number of individuals who are willing to give up valuable and even lucrative time to devote to programs that support the art and practice of medicine as it is today. If every service club in America had in it one physician who was willing, once a year, to get on his feet and talk generally about the practice of medicine, the effect would be tremendous from the standpoint of good public relations. So much more can be accomplished in our own towns and cities where the physicians are willing to give the time, than can be done at a dozen conferences held in Chicago.

But someone has to be willing to work, to give the time, and to receive as his reward only the knowledge that he has contributed to the general good, to the good of the art of medicine. A few

of his intimates will see and appreciate the contribution. Otherwise, the work often goes unrewarded. To be a medical leader requires a willingness to do these unrewarding tasks and to work at them with tact, vision, and energy. The field is wide open. There are more jobs to do than there are people to do them. An individual physician's part might be to influence only those people in his own town, or he might be called on to testify before a Congressional Committee. When it all adds up, if every physician does his part and maybe a little more, American medicine has nothing to fear in the future. As long as there are men who are willing to help another, for or without a fee, there will be physicians. And as long as there are physicians, there will be someone who carries the highest ideals of medicine.

Perhaps it is the cordial relationship which has existed between The Journal and its publishers, The Democrat Printing and Lithographing Company, Little Rock, which influences our opinion; possibly it is a high personal regard for the author, but we find the news sheet distributed by that organization and written by Frank Parke, a diverting as well as thought-provoking bit of writing.

Comments in the November 15th issue will prove of interest to members of the Arkansas Medical Society:

"Holed up in the hospital for a couple of weeks in the wake of that gastric resection, we had ample opportunity to observe the medical profession in its native surroundings, and we built up a considerable respect. They take in their stride a lot of problems that we in business, who are supposed to be so efficient, have to learn over and over the hard way.

"For instance, a doctor never seems to have to wait. He manages to have the patients (customers) always lined up waiting on him. As one production man to another, this is wonderful if you can do it, but we have trouble getting ours to stand still.

"We also admire a doctor's openness of mind. Evidently, there is so much going on in medicine that they **have** to stay alert or they'll be classed in the "leech and bloodletting" school before they know it. Try as hard as we may—in industry, adoption of new ideas comes hard.

"A doctor also doesn't feel that he has to know it all, or at least to pretend that he does. We printers are coming around to this gradually, but all too often some of us still barge blithely into the production of some specialty, completely unaware of what we don't know about it. In medicine, they refer you to a specialist at the drop of a hat.

"And last, but by no means least, we admire the doctor's outlook on the medical equivalent of crop support—socialized medicine. Call this insurance, parity, or what have you; it is funnelling things through the government, so it is still spinach, just like the little boy said.

"It's surely all right for **everybody** to be called on in a time of disaster like the recent drouth, just as a whole community gathers round to rebuild the house that burned down. But this is supposed to be temporary. The neighbors might have something to say if that same house burns down every year.

"These 'temporary' deals have such a habit of becoming permanent, once 'help' becomes easy and customary. The only thing that'll cause people to go back to eating butter is cheaper butter. If the government keeps on buying everything that is not showing much profit, the United States of America is sure going to own a lot of stuff. Farmers just farm too good when they are farming for the government.

"We can't imagine just what would become too plentiful if the doctors started to cure for the government, but we are right proud that they have no desire for us to find out. If we could just prevail on some more folks to want no part of it, we might work this thing out, after all."

"SPARKS FROM THE SECRETARY"

Wonder what your wife thinks of the Medical Auxiliary?

We have heard a few of the Doctors' wives, some belonging to Auxiliary Units and some not, state that they don't see how the Medical Auxiliary can do much worth-while work. However, let me cite a little instance in which our local Independence County Auxiliary did some good Public Relations work.

The town of Batesville had a bond issue up for a new sewer disposal plant and sewer connection units for the growth of the town. Three years ago, this bond issue was voted down by about four to one. There was strenuous opposition this time, but the Medical Auxiliary pitched in and put in advertisements in local papers stating that they were for it and, furthermore, on the night before and the morning of the election, they contacted, by phone or by person, every member in one of the Wards of the town, as well as other people in the city. As a consequence, greatly due to their work, the bond issue carried by a narrow margin.

On November 6, your Secretary attended the regional AMA Conference on Veterans Administration in Dallas. You will hear more about this later. Attending this meeting were representatives from Oklahoma, Texas, Mississippi, Louisiana and supposedly one from Kentucky, although he did not get there, as well as Tennessee. This was a very instructive meeting and the results will be a "grass-roots" campaign regarding the education of Doctors about the facts and figures of non-service connected disability work in Veterans Hospitals. This most interesting meeting took all day long and you will find a verbatim report elsewhere and will hear much more about it later on.

BUY U. S.

SAVINGS BONDS

PERSONALS AND NEWS ITEMS

Captain William P. Kolb, Little Rock, is now stationed at Camp Gordon, Georgia. He is Chief of the Mental Hygiene Consultation Service of the Basic Replacement Training Center there.

J. W. Case has moved from Pocahontas to Walnut Ridge.

John W. Murry, Texarkana, stationed at Keesler Field, Mississippi, has been promoted to captain.

R. B. Robins, Camden, addressed the Sales Executive Planning Conference at Absecon, New Jersey, November 29th, on "Trends in Medical Practice."

A. R. Sparks has been selected as the "Little Rockian of the Year."

H. L. Klemme, formerly of Belle Plains, Iowa, has located at Yellville.

J. D. Olson, Fort Smith, attended the recent meeting of the Western Surgical Association.

J. W. Downs has moved to 1206 Donaghey Building, Little Rock.

The following were registered at the Saint Louis session of the American Medical Association: E. C. Agee, Marked Tree; L. J. Bell, Helena; J. P. Bremer, Point Cedar; Willis E. Brown, Little Rock; O. H. Clopton, Rector; A. M. Grasse, Calico Rock; J. H. Hardin, Little Rock; T. S. Hare, Crawfordsville; J. A. Henry, Russellville; E. H. Hunt, Clarksville; J. L. Jackson, Bentonville; J. B. Jameson, Camden; L. O. Lambiotte, Fort Smith; J. H. McCurry, Cash; L. H. McDaniel, Tyronza; R. B. Robins, Camden; J. A. Rollow, Bentonville; Karr Shannon, Jr., Melbourne; L. H. Schwander, Little Rock, and R. H. Whitehead, Sr., DeWitt.

A. F. Barr, Forrest City, addressed the Lions Club of that city November 30th.

The North Arkansas Clinic opened its new hospital at Batesville December 6th.

F. H. Krock, Fort Smith, attended the recent meeting of the Southern Surgical Association in Homestead, Virginia.

D. W. Goldstein, Fort Smith, addressed the Alpha Epsilon Delta (pre-medical) fraternity at its annual banquet session in Fayetteville November 19th on "Common Skin Conditions."

Organization of the Cancer Coordinating Committee was effected November 22nd at a luncheon meeting in the home of Ed Gray, Little Rock, with the following elected: Chairman, Chas. Archer, Conway; Vice-chairman, Ed Gray, Little Rock, and Secretary, W. H. Handley, El Dorado.

Jerome S. Levy, Little Rock, addressed the members of the Congregation House of Israel, Hot Springs National Park, November 13th.

A diagnostic cancer clinic was conducted at Batesville November 12th by Ellis P. Cope and James Barker, Little Rock, under the sponsorship of the Independence County Medical Society and the Arkansas Division, American Cancer Society.

"Allergy in Ophthalmology" by K. W. Cosgrove, Little Rock, appeared in Southern Medical Journal, December issue.

Contributions to the American Medical Education Foundation were received in November from W. R. Brooksher, Fort Smith; T. M. Durham, Jr., Hot Springs National Park; A. M. Grasse, Calico Rock; H. E. Murry, Texarkana, and Troy Price, Monticello.

WOMAN'S AUXILIARY NEWS

The October meeting of the Woman's Auxiliary to the Garland County Medical Society was held at the home of Mrs. N. B. Burch with Mrs. Cecil Parkerson and Mrs. Paul Woods as co-hostesses.

Mrs. Robert Lewis and Mrs. Richard Graham were introduced as new members. Mrs. Charles Young introduced several wives from the Army-Navy General Hospital.

A letter was read from the Chamber of Commerce thanking the Auxiliary for its help on the recent sewer bond election.

Mrs. E. K. Clardy read a letter to the Auxiliary concerning nurse recruitment. A discussion followed about the possible help this group might give and a committee was appointed to make recommendations at the next meeting.

Mrs. Marshall Carlisle gave a very informative talk on the League of Women Voters.

The meeting was adjourned.

Mrs. Haynes G. Jackson, Secretary.

PROCEEDINGS OF SOCIETIES

The Independence County Medical Society and Auxiliary met in a joint session at a dinner at the Batesville Country Club, December 8, 1953. A very enjoyable dinner was had and a Christmas party followed the short business meeting of the County Medical Society and of the Auxiliary. The only business conducted was the election of officers. The President for 1954 is Dr. Meryl Grasse of Calico Rock, Arkansas; Vice-President is Dr. O. J. T. Johnston of Batesville and the Secretary-Treasurer is Dr. Paul Gray of Batesville, who was re-elected. Delegates to the annual session are Dr. Chaney Taylor, Batesville; an alternate delegate is Dr. L. T. Evans of Batesville.

A great deal of merriment was had at Dr. L. T. Evans' expense telling him that we felt that it was the only way we could get him to attend the State Medical Meeting, electing him as an alternate delegate; the merriment arises from the fact that he has not missed a state medical meeting for many, many years, probably 30 or more.

The Arkansas Society of Obstetrics and Gynecology met at Little Rock October 31st for the following program: "Carcinoma in Situ," Chas. R. Henry, Little Rock; "Problems of Male Infertility," William H. Masters, Saint Louis; "Breech Delivery," Charles Wickard, Little Rock; "What's New in Obstetrics and Gynecology," J. F. Kelsey, Fort Smith; "The Rh Nightmare," Haynes Jackson, Hot Springs National Park; "Habitual Abortion and Its Relation to Infertility," William H. Masters, Saint Louis, and film presentation, "Menopause," Willis E. Brown, Little Rock.

A. H. Tuttle, Memphis, addressed the Mississippi County Medical Society at Blytheville December 1st on "Malnutrition in Children."

Dr. Bruce Brian, of Cullendale, entertained the members of the Ouachita County Medical Society at dinner at the Camden Hotel in Camden December 3. The program was as follows: "Acid-Base Balance," Howard Monroe, Little Rock, and "Placenta Previa," C. E. Southerland, Little Rock.

The following new officers were elected for the coming year: President, J. L. Dedman, Jr., Camden; Vice-President, L. V. Ozment, Camden; Secretary, R. B. Robins, Camden; Delegate, Bruce Brian, Cullendale, and Alternate, W. H. Pruitt, Camden.

R. B. Robins, Secretary.

The Independence County Medical Society was addressed November 9th by C. A. Taylor, "International Postgraduate Medical Assembly," and J. J. Monfort, "American College of Surgeons: What's New and True."

Paul Gray, Secretary.

The Pope-Yell County Medical Society was addressed December 10th by Lewis M. Henry, Fort Smith, on "Cardiac Resuscitation."

W. O. Young, Secretary.

The Sebastian County Medical Society has elected the following officers: President, S. W. Hawkins; Vice-president, M. B. Hoge; Secretary, James Thompson, and Treasurer, Ben H. Pride.

Boone County Medical Society has elected the following officers: President, O. B. McCoy; Secretary, H. M. Fogo; Delegate, Albert Hammon; Alternates, D. L. Owens and Henry Kirby.

Davis Hospital, Pine Bluff, has elected the following staff officers: Chief of Staff, T. J. Cunningham; Vice-chief, H. A. Causey, and Secretary-treasurer, O. C. Raney.

The Benton County Medical Society was addressed November 24th by D. M. Bergenstal, Assistant Professor of Medicine, University of Chicago School of Medicine, on "The Control of Cancer by Hormonal Methods."

John A. Rollow, Secretary.

The Craighead-Poinsett County Medical Society was addressed December 9th by Robert L. Kelley, Saint Louis, on "Medical Aspect of Gallbladder Disease."

J. H. McCurry, Secretary.

Independence County Medical Society has elected the following officers: President, A. M. Grasse; Vice-president, O. J. T. Johnston; Secretary-treasurer, Paul Gray; Delegate, Chaney Taylor, and Alternate, L. T. Evans.

Jefferson County Medical Society has elected the following officers: President, Harold Stern; Vice-president, B. D. Luck; Secretary-treasurer, T. E. Townsend, and Delegate, Clyde Hart.

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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• SPECIAL FEATURES

Committee on Cancer Control.. 157

Recent Advancements in Pediatric Surgery 158

Modern Concepts in Pediatric Urology 161

• FEATURES

Tuberculosis Abstracts 163

Personals and News Items 164

Obituary 165

Proceedings of Societies 166

Book Review 166

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PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. L FEBRUARY, 1954 No. 9

COMMITTEE ON CANCER CONTROL

C. A. ARCHER, Chairman
Conway

FUNDS OF THE ARKANSAS STATE CANCER COMMISSION

An increase of twenty-five per cent in the per diem hospitalization cost has materially reduced the availability of funds appropriated to the Arkansas State Cancer Commission for the hospitalization of indigent cancer patients. In order that these funds may be administered efficiently, the Commission has adopted the following changes in the procedure of granting hospitalization authorization:

1. Funds of the Arkansas State Cancer Commission will not be obligated until authorization has been approved.
2. Hospitalization will not be granted to exceed fourteen (14) days per patient.
3. When available funds for each quarter have been exhausted, additional authorizations will not be approved in that quarter.

Appreciation is extended the nearly three hundred physicians who have given their services and to the cooperating hospitals.

RECENT ADVANCEMENTS IN PEDIATRIC SURGERY*

JOSEPH A. BUCHMAN, M.D., Little Rock

At the turn of the century the practice of medicine was so conducted that little distinction was made between the treatment of surgical diseases of the child and those occurring in the adult. It was soon discovered, however, that the mortality rate in the younger group was extraordinarily high and that, if improved results were to be expected, the infant or small child should receive exceptional treatment. It became evident that children were not only heir to most of the pathological conditions found in older individuals but, in addition to this were subject to types of infections and congenital abnormalities which were seldom encountered in later life. This does not imply that pediatric surgery should be set apart as a separate specialty, but it only serves to indicate that infants and children can obtain improved surgical care if appropriate studies are made and if each case is given the individual attention that it rightfully deserves. It is impossible in a 20-minute paper to discuss all of the surgical conditions. With that in mind, I will talk about a few of the more common ones along with their treatment and then to confine my remarks to congenital anomalies.

Appendicitis is still the most common condition requiring inter-abdominal surgery in children. It deserves a few remarks here because it continues to be responsible for many preventable deaths. The mortality rate in first class hospitals has been gradually improving but it is still too high.

Appendicitis is the same disease in both the adult and the child but the reaction to it is quite different in each individual. In children an accurate and early diagnosis is more difficult; and generalized peritonitis occurs in a high per cent of cases. One must realize that the untreated disease runs a more rapid and deadlier course in children and that different therapeutic principles must be used in combatting the condition. Once the diagnosis is made, immediate appendectomy is indicated. The use of intravenous fluids to correct dehydration and ketosis and the use of whole blood may be life-saving. It is best in the majority of cases to invert the cecum with a fine purse-string suture since this reduces the chances of establishing a faecal fistula. Post-operatively, one should not wait until the abdomen is markably distended before using a Levine tube with Wangensteen suction. Fowler's position, the antibiotics, intravenous fluids, and blood should be used as indicated.

Congenital hypertrophic pyloric stenosis is the most common condition which requires surgical treatment in the first few months of life. The clinical findings include all the cardinal symptoms and signs of a mechanical obstruction at the outlet of the stomach. The operation of pyloroplasty was introduced in 1912. Previous to that time the mortality in this disease had been from 50% to 75%. Today in competent hands the mortality following the Rammstedt procedure is about 1%. Care should be exercised at surgery so that no openings are made into the lumen of the bowel, and yet one should be sure that all the fibers are divided. The pre-operative care is directed toward the correction of the dehydration and the replacement of the lost body fluids and electorites. The anesthetic of choice is drop ether although the procedure can be done under novocain as well.

Inguinal hernia in the child is almost invariably of the indirect type and represents a persistence of the foetal condition in which the peritoneum has an out-pocketing along the inguinal canal. As a rule, the hernia is discovered at or shortly after birth, in the second or third months when the child becomes stronger, and straining or crying forces the intestines down into the persisting sac. Varying degrees of discomfort are observed according to the tenseness with which structures are crowded into the constricted space. Some children show little concern and have surprisingly little discomfort. Others are quite fretful, have a loss of appetite, and gain weight poorly. About 60% of the inguinal hernias are right sided. 90% of all hernias appear in males. Incarceration occurs with considerable frequency in children. It is most frequent in the first six months of life and becomes less common after the second year. In examining a child for hernia it is useless to invert the scrotum with the finger in the hope of feeling the hernial sac or to poke a finger-tip up through the external ring. Such manipulations only serve to disturb the child and give one little information. Permit the child to stand up and to cough and inspect the area for bulging. Often there is a good history of recurrent swelling but on examination it is not apparent. Sometimes one can learn a great deal by placing a finger over the inguinal structures and lightly rubbing from side to side. Parents often inquire about the posssibil-

* Read before the Seventy-seventh Annual Session, Arkansas Medical Society, Little Rock, April 20-22, 1953.

ity of a spontaneous cure if no therapy is instituted. There can be little argument about the fact that obliteration of the processes vaginalis can continue in the first month of post-natal existence, but a natural closure is a rare exception and not the rule. If the hernia is found after 6 months of age, almost no hope for a natural cure can be entertained. Treatment of the inguinal hernia in infancy and children therefore resolves itself to a choice between 2 methods, conservative application of a truss or surgery. Operation can be performed at any time. There is some disadvantage in operating before a year and a half or two years of age, because prior to this time the cord and the hernial sac are so delicate that the dissection requires a considerable amount of skill, patience, and care, but the results of early operation are good and if indicated, the procedure should be carried out, no matter how young the child is. The Fergusson technique is probably the best type of repair in a child. The Bassini type of operation with transposition of the cord is not recommended. The most important one single step is a high ligation of the sac and closure of the internal ring.

A hydrocele of the tunica vaginalis seldom requires operation within the first year of life. Small accumulation of fluid will often disappear without treatment, and infants need not be operated upon unless the mass is large enough or tense enough to cause discomfort. It is seldom necessary to treat a hydrocele of the canal of Nuck or the spermatic cord in the first year of life. However, hydroceles of the canal of Nuck or the spermatic cord usually persist and will require operative removal.

An undescended testicle is almost always associated with an indirect inguinal hernia. The undescended testes practically always have adhesions which anchor it to a nearby structure. Repeated examinations may be necessary to determine whether it is a retracted testis or an imperfectly descended one. Therefore, there should be no rush about the institution of therapy because the testes may spontaneously descend into the scrotum if the individual is kept under observation until the pre-pubertal years. In most individuals the normal procedure of descent is completed before birth but it may be delayed and can continue during childhood years. Ofttimes the undescended testicle does not enter the scrotum until or just before puberty. Without question a large number of testicles have been operated upon which would have normally descended if left untouched for a few more years. Likewise, many of the so-called cures under hormone therapy would descend had they not been treated. Under no circumstances should any form of truss ever be worn for while it will adequately support the hernia, the pressure will almost certainly damage the testicle. Early operation may occasionally be necessary because of the associated hernia, but as a rule the ultimate time for operation is between the 9th and the 12th years.

The increased use of blood transfusions, the discovery of antibiotics, and the application of better methods of anesthesia have led to the development of fields of surgery in children which 30 years ago were practically undreamed of. The study of the congenital heart in the pathological laboratory and the application of ideas in the animal laboratories have led to the development of cardiac surgery to a point where the operative mortality in congenital hearts in infants is only slightly more than that of gastric resections in adults and compares favorably to that of pneumonectomies in later life.

Bronchiectasis today is becoming recognized more and more as a surgical disease. The early removal of the bronchiectatic lobe or segment as the case may be will lead to an arrest of the disease and a complete rehabilitation of the infant or child. Should this disease process be allowed to continue into middle life it is much more difficult to rehabilitate the patient and many times one will end up with a permanent pulmonary cripple. Actually a child will tolerate a major surgical chest procedure equally as well if not better than an adult.

The field of cardiac surgery offers many possibilities, and it is a field in which I am particularly interested. The first patent ductus was ligated in 1938 by Gross in Boston. The patent ductus arteriosis is essentially an arterio-venous fistulae. Such a communication may be well tolerated if the patient is fortunate enough to escape any superimposed infection and if the ductal shunt is a relatively small one. Under such circumstances individuals have been found to have little or no incompacitation and have lived to advanced years. However, that is the unusual case. There are certain hazards which are well recognized and which occur rather frequently such as (1) the shunt may divert so much blood from the aorta that the peripheral circulation is deficient and the individual has a retarded physical development; (2) the heart may increase its output in an attempt to maintain the pulmonary circulation at a satisfactory level but in so doing will shunt an extraordinarily large amount of blood through the ductus; (3) there may be superimposed upon this abnormality a bacterial infection usually from a

streptococcus organism; and (4) then there are such rare complications such as aneurysm and rupture. The life expectancy for patients who are alive at 17 years of age with an open ductus averages about half that of the population as a whole. Therefore, it is apparent that as a rule this ductus should be closed. The long-term outlook for a patent ductus is not good. The overall surgical mortality for patent ductus will run below 4%. The age at operation will vary anywhere from a few months to adulthood. It is best that they be done in infancy or childhood since as the patient grows older the arteriosclerosis is a definite contributing factor in the increased mortality which one sees in the older aged groups.

Another congenital defect which has been attacked successfully in the past few years has been the Tetralogy of Fallot. There are two fundamental disturbances to account for the patient's cyanosis and the debilitating effects which are produced by the cyanotic state. First, there is an intermixture of blood because the aorta receives blood from both the right and left ventricles. Nothing can be done to correct this intramixture. Secondly, there is some stenosis of the pulmonary conus, the pulmonic valve, or the first portion of the pulmonary artery, any one of which would diminish the flow of blood into the lungs. This physiological deficit can be overcome by the surgical establishment of a shunt between the aorta and the pulmonary artery to allow more blood to pass into the lungs. The production of such a fistula is the essential feature of the Blaylock operation and of the Pott's procedure. In the Blaylock procedure the left subclavian may be brought down and anastomosed to the pulmonary artery. The Pott's is an anastomosis between the pulmonary artery and aorta. These operations have carried mortality rates which are not prohibitive when one considers the desperate conditions of many of these patients. The results appear to be somewhat variable. For some of these children there has been a new lease on life and the surgical accomplishment must be classed as brilliant. For most of the individuals considerable degrees of improvement have been the rule. In a relatively small number of cases there has been a failure. The cyanosis usually is moderately or markedly diminished and individuals who seldom did anything more than squat on the floor many times following the procedure will walk or run for extended distances.

There are certain cases of right aortic arch which deserve mention. The arch may rest upon the right upper lobe bronchus and produce atelectasis. Excision of that lobe will many times result in an improvement in the patient. The left common carotid artery which will pass in front of the trachea and partially obstruct it. The trachea can be relieved of this pressure by division of the vessel or by displacing the vessel and anchoring it to the back of the sternum. A double aortic arch may also be relieved of symptoms by the division of one of the arches. This is only if the arches in any way compress the trachea and esophagus. Dysphagia and stridor are the outstanding complaints and usually occur early in life. There may be recurring tracheobronchitis which may lead to death from superimposed pulmonary infection. A swallow of barium permits visualization of the esophagus which may show little disturbance in the anterior posterior view but which will be displaced forward at the level of the 3rd or 4th thoracic vertebra in the side view.

Coartation of the aorta is a narrowing or a complete obstruction of the aorta. The lesion has been described as a congenital one but the exact nature of the obliteration process is not entirely clear. There are two types, the infantile and the adult type. The infantile type has a very long segment throughout which the aorta is narrowed or obliterated. This narrowing is found usually in the aortic arch and this type is often associated with other severe cardiac anomalies which are incompatible with life. In the adult type of coartation the constriction is limited to a very short segment and appears just at or beyond the origin of the left subclavian artery. As a rule in this type the heart shows no congenital malformation and is amenable to surgery. Occasionally patients live to an advanced age and have little or no incompacitation but the majority of them develop complications of serious or even fatal significance. They may be rupture or become infected. The blood pressure in the upper part of the body may become elevated and this may be followed by all the illnesses and hazards of the hypertensive state. In general, coartation of the aorta produces little or no disturbances in childhood and indeed it may go unnoticed. Freedom from complications at this period cannot be regarded as an indication that the individual will subsequently continue through life and be unmolested by the malformation which he possesses. This, however, is a serious disease. More than 40% of the individuals will die between the ages of 16 and 30 years. This is in striking contrast to the low mortality in this age group, the prime of life for the general population. Coartation of the aorta can be recognized with great ease. The important point in its detection is the finding of an abnormal pressure relationship between the arms and the legs.

The surgical procedure is resection of the constricted area and re-anastomosis of the aorta. This paper would not be complete without discussing a few of the later surgical developments. No discussion of the treatment of congenital heart anomalies would be complete without a few words on some of the newer developments in cardiac surgery. One of the newest with which I am familiar is the occasional occurrence of an A V fistula in the region of the pulmonary conus. This can be divided between clamps and sutured with good results. One of the results of an acquired heart disease which is now amenable to surgery is that of mitral stenosis. As you all know, this is due to repeated infections of the mitral valve from rheumatic fever and results in a small stenotic mitral orifice. At the present time this is being attacked through the left auricular appendage. The immediate results in mitral commissurotomy have been almost brilliant. Patients who previously have been bed-ridden are able to live a fairly normal adult life. The cases, however, must be well selected. Pure mitral stenosis with a minimum of insufficiency will give the best postoperative results. No long-term follow up is available since these procedures have been done only for the past four years. I personally have been pleasantly surprised at the good results which I have obtained.

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MODERN CONCEPTS IN PEDIATRIC UROLOGY*

J. O. COOPER, M.D., El Dorado

Advances in handling urological problems as a concept of development has varied with the individual. I choose here to present the coalition of ideas in the approach to the child from a preventive urological standpoint as something new in medicine. In reality, no one part of this is new to anyone. The term preventive urology I should like to use as a line of thinking, so that as much of the anatomical disease as possible can be detected before serious destruction of kidney tissue has occurred. The problem is quite similar in its development to an age old question regarding the appendix, in which case the point for discussion always revolves around what percentage of a series of appendectomies should be normal to represent a sane mode of thinking from a safety standpoint in that a surgeon with a record of 100% removed appendices being reported pathologically acute undoubtedly is running the risk of allowing too many to rupture, whereas, the surgeon who reports 90% of appendices removed to be normal is certainly being a little too eager and should reevaluate the problem. In like manner the patients in the pediatric age should be considered from a group standpoint and the criteria for a complete urological workup applied, both collectively and individually to one's practice. We often hear amazed comment regarding a young adult in perhaps the 30 to 40 age group who has previously been regarded as being healthy and suddenly is found to have an abnormality in his genitourinary tract that while reparable two decades earlier now presents a picture of permanent destruction of an irreparable type to the kidneys proper, and medicine has only palliative measures and custodial care to offer.

In my opinion, this represents tragic results of improper approach to preventive urology on the part of the physician who may have had opportunity to detect this in earlier life in time to prevent the destruction of renal tissue from occurring. This patient is then a living memorial to the lack of application of modern concepts to his case. When it happens to me I feel that I have slipped. Statistics have varied but something like 90% of the children are being cared for by their family doctors. This means that to reach the great majority of our children, we must approach, not the men in pediatrics, but every avenue in medicine that will bring to life more early diagnosis of reparable, anatomical deviations from normal. In the practice of a urologist in Arkansas during the past year an analysis of all children under the age of 15 was just performed. We found that a total number of children seen—58 in number—47 were referred by two men, 3 came in without referral, and 8 were obtained from the remainder of the doctors who happened to use this urologist. An analysis of this group of 58 cases revealed that 31 were found to have urinary tract pathology. This means to me that there has been during this year a vast number of patients with anatomical abnormalities in the urogenital system in which

* Read before the Seventy-seventh Annual Session, Arkansas Medical Society, Little Rock, April 22, 1953.

disease is not being suspected—therefore, to whom the criteria for a complete urological workup is not being applied. One of these patients, a male, age 8, had been under my care for four years, whose presenting complaint was enuresis and upon complete study virtually irreparable damage was found due to a stricture of the bladder neck. During the time this boy was under my care I had felt I was exercising complete care to prevent this tragedy from occurring. Perhaps, this helps to make me conscious of the gravity of the problem.

I would like to present first the following as indications for a complete workup.

I. Pyuria.
   A. Acute, persistent—acute febrile illness wherein there is no subsidence of symptoms after 4 to 6 days of modern antibiotic therapy.
   B. Chronic—resistance of 2 to 3 weeks with pyuria and bacilluria, the only manifestation.
II. Disturbance of Urination. (Dysuria, frequency, urgency.)
III. Hematuria (except nephritis and sulphur.)
IV. Recurrent, unexplained abdominal pain or vomiting.
V. Abdominal tumor.
VI. Anomalies of the external genitilia (30% have an associated anomaly of the upper urinary tract).
VII. Urogenital injury.
VIII. Hypertension, cause unexplained.
IX. Renal insufficiency.
X. Enuresis above the age of 4 (one-sixth of these will have an anatomical abnormality).
XI. Spinal cord injury and disease.

This then brings us to the definition of a complete urologic workup in children. It may be divided into two portions: A. To be performed by the family doctor. B. To be performed by the urologist.

A. To be performed by the family doctor—
   1. History and complete physical including palpation of the prostate in boys.
   2. Determination of the presence or absence of residual urine by catheter.
   3. Examine the catherized urine with a Gram's stain.
   4. Kidney function tests.
   5. Blood chemistrys as indicated.
   6. A flat plate of the abdomen.
   7. Intravenous Pyelogram.

After completion of the above, one can decide whether or not further urological examination by urologist is necessary. It should be remembered that the area from the bladder neck to the external meatus is not covered by the above and in this area we find the most common and the most easily repaired pathology.

B. The Urologist's Job.
   1. Review the findings as listed above.
   2. Cystoscopy.
      1. Identify your urethral obstruction.
      2. Study posterior urethra and bladder.
      3. Ureteral catheterization.
      4. Study divided kidney specimens.
      5. Retrograde pyelography, usually bilateral.

This then brings one to the review of a collection of facts wherein the problem is one requiring primarily a demonstration of the urogenital anatomy. It makes it very obvious whether one does or does not have an anomaly. After the nature of an anomaly is demonstrated, it then is very easy to determine just exactly how much and how soon operative work should be done to insure that individual a maximum or normal, healthy life. In the event, an anomaly is discovered for which operative correction is not necessary it acquaints the patient with complete knowledge of his limitations and opens the way for periodic checkups to prevent unlimited progression of the terminal affects of the lesion.

In conclusion, my prime intention is to re-state the possibilities of extending life and comfort by becoming more liberal in the recommendation that children be subjected to scrutiny in a careful manner in order that more congenital abnormalities may be diagnosed at an age satisfactory for correction.

BUY U. S.

SAVINGS BONDS

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

STREPTOMYCIN AND DIHYDROSTREPTOMYCIN

In 1946 it was reported that streptomycin salts may be reduced to form corresponding dihydrostreptomcin salts; which were more stable in alkaline solution and had other desirable chemical properties. Subsequent reports on the comparative activity of streptomycin and dihydrostreptomycin, both **in vitro** and **in vivo**, showed that on the whole the drugs were equally active, although against a number of bacterial species, including some strains of tubercle bacilli and of salmonella, dihydrostreptomycin was appreciably less active.

In the November, 1948, issue of the **American Review of Tuberculosis** a series of six separate reports on laboratory and clinical aspects of dihydrostreptomycin appeared. Among them were two clinical reports, one on 14 patients treated at the Mayo Clinic and the other concerning 12 patients observed at the New York Hospital. The investigators in both clinics concluded that dihydrostreptomycin seemed to be as effective as streptomycin and had the advantage of being tolerated longer before toxic manifestations became apparent. The other important feature noted was the fact that dihydrostreptomycin could be used to continue therapy in some patients who had shown sensitivity reactions to streptomycin. Although these workers were satisfied that dihydrostreptomycin was an improvement over streptomycin in this regard, both groups emphasized the fact that its administration in sufficiently large doses could produce the same damage to the nervous system as streptomycin. A major drawback to large-scale use of streptomycin is the emergence of drug-resistant strains of tubercle bacilli and this was not overcome by the derivative; moreover, cross-resistance between the two agents was complete.

In spite of the small number of cases and the short period of the study, these observations, had such a profound effect on many tuberculosis clinics and general hospitals that they rapidly turned from streptomycin to the use of dihydrostreptomycin. Within a short time nearly 90 per cent of all streptomycin that was produced and distributed was in the form of salts of dihydrostreptomycin.

It was not long, however, before workers began to realize that dihydrostreptomycin was not as innocuous as the early reports has led them to expect; indeed, that its potential toxicity was fully as grave as that of streptomycin. Although the toxic effects of dihydrostreptomycin on the vestibular apparatus were less than those of streptomycin, severe damage to the auditory nerve with permanent loss of hearing and even complete deafness were far more frequent, particularly when intensive and prolonged therapy was employed. These complications led several observers to recommend that dihydrostreptomycin be used only with patients who had become sensitized to streptomycin.

A more controlled study of the comparative toxicity and efficacy of the two forms of streptomycin was made by the workers in the hospitals collaborating with the Veterans Administration's study on the chemotherapy of tuberculosis. Data in groups of patients treated in exactly the same manner but given either streptomycin or dihydrostreptomycin, the choice of agent being entirely by a random selection, were presented at the Eleventh Conference of Chemotherapy of Tuberculosis in January, 1952. The study indicated that dihydrostreptomycin and streptomycin were equally effective and equally toxic, but whereas streptomycin was somewhat more toxic to the vestibular apparatus, dihydrostreptomycin caused more auditory damage and perhaps slightly fewer hypersensitivity reactions.

At the 12th Conference, in February, 1953, Lyght and Hawkins reported on another controlled study of the efficacy and toxicity of these two agents. They found both to be about equally effective. Streptomycin apparently produced a higher percentage of sputum conversions, caused more allergic reaction, and frequently was significantly toxic for the vestibular system. Dihydrostreptomycin was relatively well tolerated with respect to allergic reactions, seldom was toxic for the vestibular system but was more likely to cause

Editorial, The New England Journal of Medicine, June 18, 1953. (Reprinted with slight revision by the author.)

auditory loss which was sometimes progressive, especially after prolonged therapy.

Two other studies dealing with the combined use of streptomycin and dihydrostreptomycin, were reported at this conference. A laboratory study, by Poutsiaka, Thomas, Linegar and Hobson, dealt with ataxia in cats—a delicate test for vestibular function. These tests showed that the time required for ataxia to develop in the cat from either streptomycin or dihydrostreptomycin was inversely related to the dose and that with the same dose it took appreciably longer to demonstrate ataxia with dihydrostreptomycin. When a similar total amount was used as a 1:1 mixture of the two agents, the appearance of ataxia was somewhat delayed over the time required for it to appear when streptomycin alone was used. This finding seemed important enough to warrant clinical trial of the mixture.

Such a clinical trial was reported by Heck and Hinshaw in 110 patients, each of whom was given daily doses of 1 gm. for 120 days; 34 received streptomycin, 34 dihydrostreptomycin, and 42 the 1:1 mixture of the two agents. Vestibular and auditory damage was studied during a six months' follow-up period. Vestibular disturbances were noted in six (18 per cent) of patients treated with streptomycin and in two (6 per cent) of those receiving dihydrostreptomycin; auditory disturbances were noted in none of the former, and in five (15 per cent) of the latter. All of the 42 patients treated with the 1:1 mixture were free of both vestibular and auditory disturbances.

Although this clinical demonstration appears to be quite striking, it would seem wise to accept the conclusions with caution. The number of patients was not large, and the results, judging from the laboratory experiment, appear to have been inordinately favorable. Further observations in large numbers of cases are necessary to ascertain whether equally favorable results can be obtained regularly, and under different treatment regimens.

In spite of the recent introduction of isoniazid and the demonstration of its effectiveness, streptomycin, either as such or as dihydrostreptomycin is still the mainstay of long-term antituberculosis therapy. Perhaps the most critical situation in which the availability of two forms of streptomycin has proved useful is in patients who have become sensitized to one of these agents. In such patients it has been possible to give the alternate compound without serious reactions and thus permit prolonged therapy. The hazard of sensitizing patients to both agents must be seriously considered and weighed.

Daily doses of streptomycin were used in the reported studies, perhaps in order to obtain comparable effects. Such doses are no longer considered necessary or desirable except possibly for short periods when chemotherapy is being instituted in acutely ill patients or in preparation for surgery. The most desirable and acceptable regimen for long-term therapy, employs streptomycin twice a week with para aminosalicylic acid daily. With this regimen the incidence of both vestibular and auditory disturbances from either form of streptomycin is low. This removes another cause for seeking to confuse chemotherapy by the use of the combined agents, each of which has certain distinct properties that it may be desirable to invoke separately in critical situations.

PERSONALS AND NEWS ITEMS

Fred H. Krock has been elected president of the congregation of the First Lutheran Church, Fort Smith.

Ken Thompson has been elected a vestryman of Saint John's Episcopal Church at Fort Smith.

Fount Richardson, Fayetteville, has been appointed Chairman of the 1954 Nominating Committee of the American Academy of General Practice.

Pearl B. Waddell, Fort Smith, spent a recent vacation in Georgia.

BORN—On January 14th, Linda Ann, to Dr. and Mrs. W. T. Holman, Jr., Van Buren.

W. H. Poynor has moved to new offices at Berryville.

Gerald Pearce has located at Heber Springs.

MARRIED—On December 6th, Miss Norma Jane Wilson of Oneonta, New York, and Charles A. Hesterly, Prescott.

J. B. Jameson has been elected president of the Camden Rotary Club.

The Ninth Annual Conference of Rural Health will be held at the Baker Hotel, Dallas, March 4-6th, sponsored by the Council on Rural Health of the American Medical Association. Chas. R. Henry, Little Rock, is a member of the Council. Discussions will be on the roles of community planning, cooperative efforts, nutrition and insurance in the maintenance of healthful conditions in agricultural areas.

F. J. Scully, Hot Springs National Park, was the subject of a recent feature article in the Arkansas Democrat.

Grady W. Reagan, Jr., has been released from military service and has joined his father in the practice of urology at 1206 Donaghey Building, Little Rock.

The following were announced as contributors to the American Medical Education Foundation during December, 1953: M. E. Blanton, Jonesboro; C. H. Frank, Texarkana; Edwin F. Gray, Little Rock; Ben N. Saltzman, Mountain Home, and Carl L. Wilson, Fort Smith.

"The Medical School and the General Practitioner" by Hayden C. Nicholson, Little Rock, appeared in the January issue of the Southern Medical Journal.

Paul L. Mahoney, Little Rock, attended the recent Saint Louis session of the American Laryngological, Rhinological and Otological Society.

Curry B. Bradburn, Jr., has joined Grady W. Reagan for the practice of urology at 1206 Donaghey Building, Little Rock. Dr. Bradburn is a graduate of the University of Arkansas School of Medicine, served in the naval medical corps and completed a urological residency at the Ochsner Clinic, New Orleans.

AMERICAN MEDICAL ASSOCIATION DUES

The Saint Louis Session of the American Medical Association adopted a resolution which provides that any active member of the American Medical Association who failed to pay dues for the year 1950, and who was suspended for such delinquency, may be reinstated during the first six months of 1954 by payment of 1954 dues only. Should such an individual fail to pay his 1954 dues by July 1, 1954, he shall continue to be considered delinquent.

OBITUARY

THOMAS L. HODGES, age 85, Bismarck, died December 3rd. A graduate of Barnes Medical College, Saint Louis, in 1898, he had practiced in Arkansas and Missouri since graduation and was a charter member of the Fifty-Year Club. He was a member of the Masonic bodies, including the Scottish Rite and the Shrine, a charter member of the Arkansas Historical Society and a member of the Texas Archaeological and Palentological Association. Born in Morehead, Kentucky, January 17, 1868, he was married October 10, 1927, to Miss Charlotte Mikulus, who, with one son and one daughter, survives him.

ERNEST C. AGEE, age 41, died suddenly at Marked Tree December 11th. A graduate of the University of Tennessee School of Medicine in 1949, he had practiced at Marked Tree for nearly three years. He was a member of the Rotary club, the Presbyterian church and the Phi Chi fraternity. Surviving are his wife and a son.

SAMUEL N. DOANE, age 76, died at Arkadelphia December 30th. Born at Canton, Pennsylvania, he received his medical degree from Jefferson Medical College as a member of the first four-year class at that school in 1902. He received the gold medal of the school for fifty years of practice in 1902. He came to Arkansas as physician for the Pike City Lumber Company and located at Arkadelphia in 1905. He was a member of the First Presbyterian church and of the Masonic bodies. Surviving are his wife, a son, Dr. Samuel N. Doane, Jr., of Clarksville, Tennessee, and two daughters.

CARL M. HARWELL, SR., age 74, Osceola, died December 26th. Born at Friendship, Tennessee, he graduated from Memphis Hospital Medical College in 1909 and had practiced at Osceola for over 44 years. He was married September 7, 1904, to Miss Lucy Rhodes, of Osceola, who with a daughter and one son, Dr. C. M. Harwell, Jr., Memphis, survive him. He was the first president of the Osceola Rotary club and a member of the Board of Stewards of the Methodist church. He was a past-president of the Mid-South Postgraduate Medical Assembly and a member of the Masonic bodies.

PROCEEDINGS OF SOCIETIES

The Ninth Councilor District Medical Society met at Harrison December 4th for the following program: "Some Remarks on Chronic Lung Disease," Andrew A. Pringos, Little Rock, and "Surgical Aspects of Peptic Ulceration," M. J. Kilbury, Jr., Little Rock.

The Pulaski County Medical Society was addressed January 4th by Mr. Theodore Wiprud, Executive Secretary of the Medical Society of the District of Columbia, on "Who Pays the Doctor?"

Edwin F. Gray, Secretary.

The Craighead-Poinsett County Medical Society was addressed January 6th by representatives of the American Association of Physicians and Surgeons on "Socialized Medicine."

J. H. McCurry, Secretary.

The Pope-Yell County Medical Society met at Russellville January 14th for a program on physical therapy.

W. O. Young, Secretary.

Pulaski County Medical Society has elected the following officers: Clyde D. Rodgers, President; Alfred Kahn, Jr., Recording Secretary; Edwin F. Gray, President-Elect, and R. M. Blakely, Recording Treasurer.

BOOK REVIEW

May's Manual of Diseases of the Eye. Edited by Charles A. Perera, M.D., Associate Clinical Professor, College of Physicians and Surgeons, Columbia University. 21st Edition. Pp. 512. Baltimore: Williams and Wilkins Company, 1953. Price $6.00.

This familiar volume reappears filling the need for a text on diseases of the eye for students and general practitioners.

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W. R. BROOKSHER, M. D., Editor
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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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• SPECIAL FEATURES

Committee on Cancer Control.... 167

Hemorrhagic Disease 168

Rheumatic Fever—
Practical Aspects 172

Typhoid Fever in Children in
Arkansas 174

Annual Committee Reports 177

Preliminary Program—
78th Annual Session 187

• FEATURES

Editorial 192

Tuberculosis Abstracts 193

Obituary 194

Personals and News Items 195

Proceedings of Societies 195

Book Review 196

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Vol. L MARCH, 1954 No. 10

COMMITTEE ON CANCER CONTROL

C. A. ARCHER, Chairman
Conway

THE COUNTY MEDICAL SOCIETY CANCER COMMITTEE

The responsibility of the county medical society in the established cancer control programs has been repeatedly emphasized. The Arkansas Medical Society, the Arkansas Division, American Cancer Society and the Arkansas State Cancer Commission have insisted that all cancer programs and activities be approved by the respective county medical societies. For these reasons, the importance of county medical cancer committees should be recognized.

The opportunities of such committees to cooperate with the established agencies in the state concerned with the cancer problem are many. Perhaps the most important is in the field of professional education. County medical societies should arrange for at least one scientific program designed for professional education during the year. Diagnostic cancer clinics have proven their value in the detection, and thus the frequent eradication, of early malignancy. The county society should assume its proper role in the conduct of such clinics. Finally, the county society cancer committee can furnish needed help in the lay educational program of the Arkansas Division, American Cancer Society, by providing speakers.

If these objectives are sought, the committee on cancer of the county medical society may well be the most important of all the committees of the county society.

HEMORRHAGIC DISEASE †

ALBERT M. HAND, M.D.*

The purpose of this presentation is to review the theory of coagulation, to discuss the factors concerned with hemostasis, and to present a diagnostic approach to hemorrhagic disease, with emphasis on the laboratory procedures well adapted to infants. Figures I and II represent some of our recent problems.

Figures I and II

Since there are many factors concerned with hemostasis, the first step to the diagnosis of hemorrhagic disease is the usual history, physical, laboratory and X-ray examination. By this approach a systemic disease is frequently discovered (examples, meningococcemia, sepsis, bacterial endocarditis, etc.). The need of a special workup for hemorrhagic disease may be thereby eliminated and therapy expedited.

When faced with a patient with abnormal bleeding, a history taken with hemorrhagic disease in mind will serve to clarify the problem. Questions relative to the following points are usually helpful:

1. Bleeding in family members or relatives?
2. Bleeding associated with teething?
3. Bleeding after operations, cuts or trauma?
4. Ecchymoses at immunization or penicillin injection sites?
5. Petechiae on crying?
6. Ease of bruising, and how long does the blue spot last?
7. Prolonged menses?
8. Petechiae or purpura associated with upper respiratory infection?
9. Allergic manifestations in the patient and his family?
10. Recent medications and Vitamin C intake?
11. Bleeding from the gastro-intestinal tract, genito-urinary tract, into the joints or mucous membranes?

Figure 1. 3-year C.M. Acute Yellow Atrophy, Hypoprothrombinemia, Brain Hemorrhage.

In performing the **physical examination** on the patient with suspected hemorrhagic disease one searches for:

1. Petechiae or ecchymoses in the conjunctivae, in the mucous membranes, over the entire body, and in the eyegrounds.
2. Lymph node enlargement, splenomegaly, and abdominal tumors.

† Presented to the meeting of the Arkansas Medical Society, April 21, 1953.
* Instructor in Pediatrics and Bacteriology. From the Department of Pathology and Pediatrics, The University of Tennessee College of Medicine, 858 Madison, Memphis 3, Tennessee.

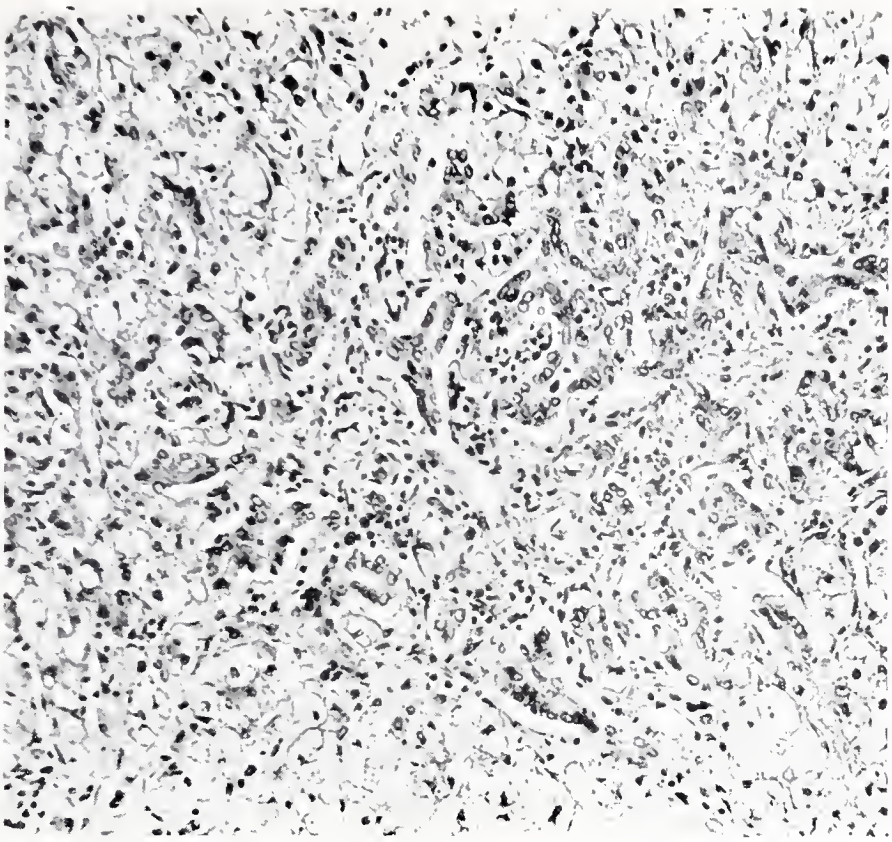

Figure 2. 11-day female. Biliary ductal hyperplasia from congenital biliary atresia; associated with B. coli sepsis and meningitis, severe hypoprothrombinemia.

3. Evidence of hemorrhage around recent injection sites and at the point of finger-stick or venipuncture.
4. Jaundice and hepatomegaly.

Figure 2

Coagulation is said to occur in three steps. Figure 2 is a composite of most of the known factors involved in the clotting process.

1. The first step is the **formation of thromboplastin.** Injured tissues release thromboplastin. Platelets disintegrate and liberate an activating enzyme, thromboplastinogenase, which acts on plasma thromboplastinogen to produce thromboplastin. Thus there are **two sources of thromboplastin,** injured tissue and plasma.

2. The second step in blood coagulation is the **formation of thrombin from prothrombin.** Prothrombin is activated by thromboplastin in the presence of calcium. Plasma accelerator factors hasten this reaction. Formed thrombin serves to activate plasma accelerator substances. Thrombin is also a thrombocyte labilizing agent and the breakdown of platelets speeds the clotting mechanism. Thus the chain reaction that characterizes coagulation gains momentum.

3. The third step in the process of coagulation is the **formation of fibrin from plasma fibrinogen** in the presence of thrombin. At this point the clot is visibly precipitated.

Not included in Figure I is an important phase of **clot retraction.** Fibrin contracts under the influence of the platelets. In thrombopenic states clot retraction is notably defective.

Clotting of the blood is essential to the **process of hemostasis** but actually multiple factors protect the individual from abnormal bleeding. These are outlined:

Hemostasis

I. Blood Vessel Factors
   a) Type, size and location of injured vessel
   b) Endothelial integrity
   c) Vasomotor mechanisms (constriction and retraction)
   d) Hydrostatic pressure

II. Tissue Factors
   a) Thromboplastin
   b) Turgor
   c) Elasticity

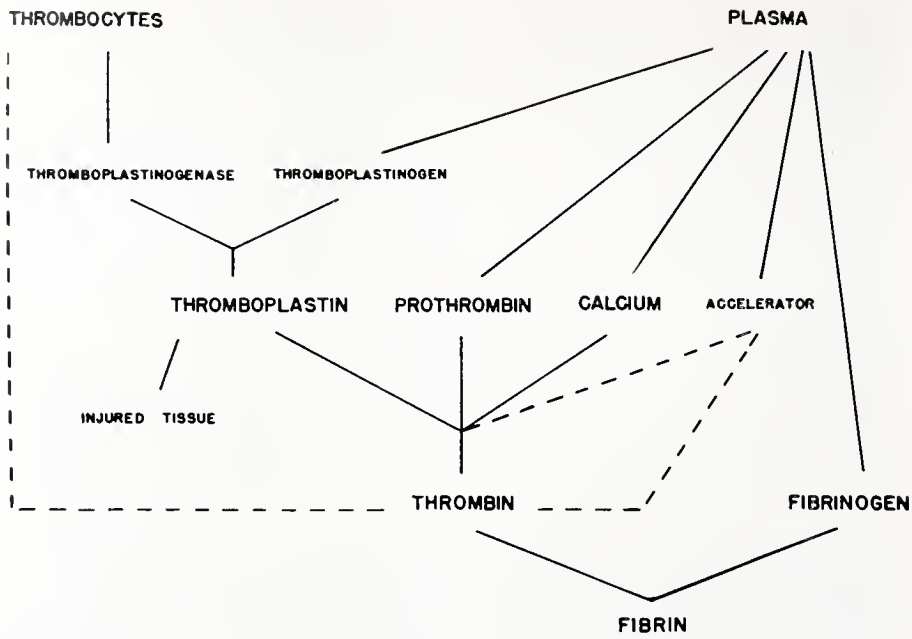

Figure 3. Relation of principal factors concerned with blood coagulation. (From Diggs, L. W.).

III. Thrombocytes
   a) Thromboplastinogenase
   b) Vasopressor substance
   c) Clot retraction

IV. Plasma Factors
   a) Thromboplastin precursor (thromboplastinogen)—>thromboplastin
   b) Prothrombin—>thrombin
   c) Calcium
   d) Plasma Prothrombin accelerators—>serum prothrombin accelerators
   e) Anticoagulants (inhibitors)
   f) Fibrinogen—>fibrin
   g) Profibrinolysin—>fibrinolysin

Blood vessel factors and tissue factors are of the utmost importance in hemostasis, in addition to normal clotting and clot retraction mechanisms. It is doubtful if the clotting mechanism would have a chance to get started in the absence of vasospasm, vessel retraction, and normal tissue elasticity.

The Bleeding Profile

The patient with abnormal bleeding often comes as an emergency and immediate transfusion and maintenance of blood volume are life-saving necessities. One should make every effort to get laboratory information about the patient's bleeding mechanism before transfusion is administered, and the diagnosis becomes confused, or further confused. The **laboratory studies need not delay the emergency therapy,** because blood can be obtained for a hemorrhagic workup at the time blood is taken for typing and cross-match. The physician who first sees the case can obtain the **four** tests needed to establish a bleeding profile, and which in many cases will offer a definitive diagnosis when interpreted with the history, physical and other examinations. In some instances blood can be collected directly from a wound (example, a cut), eliminating an additional and unpleasant needle puncture. The 4 tests are:

1. Bleeding Time and Capillary Fragility
2. Coagulation Time and Clot Retraction
3. Blood Smear for Platelet County and Examination for Abnormal Cells
4. Prothrombin Time

Bleeding Time and Capillary Fragility

Place a blood pressure cuff around the arm immediately below the elbow and inflate to 40 mm. Hg. (an infant blood pressure cuff is of value). This is the Ivy method. With a sterile stylet * puncture the skin of the alcohol cleaned (and dried) forearm below the cuff. Be sure to obtain a free flow of blood, and use a sterile stylet. One should become accustomed to one type of stylet in testing for bleeding time, so as to be familiar with its blood letting effect. Wipe away the blood drops each 30 seconds with a round blotter. After the bleeding stops the wound usually oozes blood tinged fluid for a few minutes. Normal bleeding time is 1-6 minutes by this method, and the oozing time is 1-4 minutes.

* Hemolet, American Hospital Supply Corporation.

The blood pressure cuff is left in place for 5 minutes and the arm is observed for petechiae as a test of capillary fragility. It is retained in place for an additional 5 minutes (total of 10 minutes) if no petechiae are noted. The test is contraindicated if petechiae or ecchymoses are already present and should be concluded if petechiae appear. The time required for the bleeding time is usually sufficient for carrying out this test. Ecchymoses around the site of previous needle puncture is a clinical indication of increased capillary fragility.

Coagulation Time and Clot Retraction

a) One cc. of venous blood is placed in each of 4 clean dry serological tubes. The first tube is tilted at 30-second intervals until clotting has occurred, then the second tube, and so on until the blood in all the 4 tubes has clotted. Timing is begun at the time of venipuncture. The 4 clotting times are recorded, added, and the average of the four is taken as the coagulation time. Normal coagulation time is 5-20 minutes. A clotting time of 20-25 minutes or longer by the tube method is indicative of hemorrhagic tendency.

b) Blood used for the test tube method of clotting time determination is preserved and observed for **clot retraction.** The actual time of clot retraction is less important than the character of the clot, but retraction is usually complete within 30 to 60 minutes. It may be observed longer. The normal blood clot is relatively dry and the amount of serum expressed from the clot is 40% or more of the total volume of the blood specimen. A defective clot is soft, boggy, easily torn and retains a large part of the serum.

c) If venipuncture is contraindicated, and frequently it is, the coagulation time may be taken from a skin puncture with **capillary tubes.** Blood from a freely flowing skin puncture is drawn by capillary attraction into several capillary tubes. The tubes are held in hand to keep warm. A segment of a tube is broken off between the fingers each 30 seconds until a fibrin strand appears. Normal clotting time by this method is 1-5 minutes.

d) **Clot retraction** may be performed from a skin puncture by the Hirshboeck hemoglobin pipette and castor oil method. Drops of whole blood from a skin puncture are taken up in a hemoglobin pipette and suspended in castor oil. The beginning of clot retraction is established "when a visible dimpling of the clot surface with extrusion of a tiny droplet of serum occurs." The drop is further observed for completion of retraction. The average normal clot retraction time with this method is 30-35 minutes, with a range of normal variation from 15-45 minutes. Greater than 45 minutes is considered indicative of hemorrhagic tendency.

Blood Smear for Platelet Count and Examination for Abnormal Cells

A routine blood smear is made and **100 oil immersion fields** are examined for platelets. The slide is scrutinized for leucemic cells. The stain should be as precipitate free as possible, so as not to confuse the microscopic appearance. The platelets in clumps in the smear are counted individually as nearly as possible. Normal is **300-600 platelets**/100 oil immersion fields. Thrombopenia is indicated by finding less than 100 platelets per 100 oil immersion fields (o.i.f.) and the count often goes to 10 or less in severe thrombopenia.

The test is excellent for the diagnosis of thrombopenic states and also for following the progress of patients with known thrombopenia.

Prothrombin Time

Venous blood, 4.5 cc., is mixed with 0.5 cc. sodium oxalate solution (1.34 gram per 100 cc. water) and centrifuged. Oxalated plasma, 0.1 cc., is transferred to a small test tube (13 X 100 mm.) and kept in a water bath at 37.5°C. Thromboplastin solution, 0.1 cc., is added and a stopwatch is started. Tilt the tube gently until the first fibrin web appears. A control on normal plasma is run and reported with the patient's result. The results are reported in seconds **and** percentage of normal. Normal time with potent thromboplastin * is 11-13 seconds, and values ranging to between 13 and 18 seconds are acceptable.

The bedside method of determining prothrombin time may be employed when veni-puncture is contraindicated, extremely difficult and fatiguing to the patient (example, small infant), or when repeated testing for prothrombin time is indicated, etc. A drop of blood from a skin puncture is placed on a clean glass slide and mixed with an equal size drop of thromboplastin * with a toothpick. The slide is held over a substage lamp to aid visualization and a toothpick is drawn **gently through the edge** of the solution at 2-3 second intervals until fibrin precipitate is observed. Continual or vigorous stirring of the blood-thromboplastin mixture on the slide is to be avoided as the blood will become defibrinated and no clot will appear.

* Available Commercially: Simplastin (Chilcott), Thromboplastin (DIFCO).

Prothrombin time prolonged to 2-3 times that of normal is indicative of a hemorrhagic tendency. Minor deficiencies of prothrombin do not cause abnormal bleeding as a rule, but marked lowering of the plasma prothrombin level may be associated with fatal hemorrhage.

Thus, if necessary, one may carry out a diagnostic bleeding profile without a veni-puncture. This is valuable when following patients with known bleeding tendency such as hemophilia, thrombopenia, hypoprothrombinemia from hepatitis or erythroblastosis, etc. The bedside prothrombin method is especially useful to determine the effect of Vitamin K or whole blood administration upon the patient's prothrombin level. These "micro" methods may be briefly reiterated:

1. Bleeding time and capillary fragility with blood pressure cuff, the Ivy method.
2. Clotting time, the capillary tube method.
3. Clot retraction, the Hirshboeck hemoglobin pipette and castor oil method.
4. Blood smear for platelet count and examination for abnormal cells.
5. Bedside prothrombin method, requiring a drop of blood.

Summary

The following have been reviewed:

1. History taking and physical examination in suspected hemorrhagic disease states.
2. The theory of coagulation.
3. Factors concerned with hemostasis.
4. "Bleeding Profile," emphasizing the laboratory procedures well adapted to small infants and those which do not require veni-puncture.

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RHEUMATIC FEVER—PRACTICAL ASPECTS

JOSEPH L. ROSENZWEIG, M.D., Hot Springs National Park

This discussion is intended to give us a better idea of the importance of rheumatic fever, and is not aimed at reviewing present concepts of the pathology, diagnosis, and treatment. As Wheatley has said, rheumatic fever is a disease of paradoxes. It kills and cripples more children than any other disease, but has received little attention in comparison with its seriousness. It is admittedly one of the most widespread diseases of childhood, yet pediatricians have shown less interest in it than cardiologists. It can occur in epidemic form, yet is generally not reportable. In spite of its prevalence and severity, the cause is unknown and the diagnosis is difficult. Therefore, I speak as a crusader for an increased interest in a disease that all doctors see—regardless of their location or type of practice.

No one dislikes a barrage of statistics any more than I, but it is necessary that we view some in order to get an idea of the magnitude of the rheumatic fever problem. Granted, statistical data on this subject are not ideal. Inadequate diagnosis and lack of reporting make for a great deal of error, but the shortcomings would favor erring so as to imply a lesser incidence than actually prevails. Nevertheless, figures available still point toward an alarmingly high incidence. There are an estimated 600,000 cases of rheumatic heart disease in the United States in persons under 50 years of age, and about 20,000 new cases of rheumatic fever each year in the 5-24 age group. To get an idea of the economic problem associated with this disease let us consider the treatment of only the new cases through their acute phase. Such an illness requires an average of approximately 50 days in a hospital. At a cost of $10 per day, we find it would cost $10,000,000 to give adequate care to only the new cases through only their acute phase. This amount sounds great, but is small in comparison with the total cost of the illness to the hundreds of thousands who have passed their acute phase. When we compare the magnitude of this problem with that of other diseases, better known and dreaded more by the laity, we find quite a discrepancy.

Before someone brings up the question of geographic distribution let me say that we cannot consider this a disease of only wet, cold climates. To get a better idea about the local incidence, I wrote to the boards of health of our own and neighboring states requesting data. In Mississippi the disease is not reportable. In Arkansas it has been reportable since July, 1948. In the last 6 months of that year a total of 7 cases were reported. Throughout 1949 only 10 cases were reported. Surely there were more cases than that in each of our largest cities!

Louisiana lists 80 cases for 1947; 54 for 1948; and 37 for 1949. Yet, routine autopsies done at Charity Hospital in New Orleans in the years 1940-1945 showed evidence of rheumatic fever in 1.91%. Such an array of data only impress us with their fallacies and confuse the picture. We conclude that the disease is common throughout our country—probably less common in sub-tropical and tropical climates.

As a pediatrician, I am particularly interested in this disease as it has its greatest incidence in the school age group. The majority of first attacks occur in the 5-9, actually the 5-14, age group. It is in this category that we must concentrate our efforts if we are to make adequate progress in the management of this disease. Diagnosis during the acute phase and proper treatment instituted early are the keys to successful treatment. It is our duty as physicians to see that this is accomplished.

Few people realize that rheumatic fever is the leading fatal disease in the 10-19 age group, and is second only to cancer in the 5-9 group. The much dreaded poliomyelitis kills about one-seventh as many school children as does rheumatic fever; yet, the word "polio" carries with it far greater alarm than does the illness we are discussing today. In spite of our lack of knowledge of the cause and cure, the mortality rate in the 5-24 group from rheumatic fever has declined 80% since 1920. Improved nutrition, protection from communicable diseases, and chemotherapy all have had a part in this decrease. On the surface this looks better than it really is: Even though the total mortality has fallen, the improvement in the management of other diseases has progressed more rapidly so that rheumatic fever has advanced in position as a cause of death. In other words, decline in rheumatic fever deaths has not been as rapid as it has for our other important fatal diseases.

We shall not go into a discussion of the voluminous amount of work done toward finding the etiology of this disease, but there is one point I wish to mention briefly; namely, that genetic studies indicate a Mendelian recessive mechanism in hereditary susceptibility to rheumatic fever. With adequate family studies one can predict with a fair degree of accuracy the expected number of offspring who will develop rheumatic fever. Thus, in considering etiologic factors we must consider also the susceptibility of the individual.

All will agree that the diagnosis of this disease is difficult, as there is no single specific diagnostic test. A case of long standing with definitely discernible pathology may not be difficult, but we are more concerned in diagnosing the early cases. Not only is the diagnosis difficult, but also dangerous. To err in failing to recognize a case on the one hand or to erroneously diagnosis it on the other result in a great deal of injustice to the ailing child. Basically, our present diagnostic methods boil down to a fine separation of the normal from the abnormal.

About the only major addition to treatment that has occurred in the past few years has been the use of chemotherapy and antibiotics to ward off recurrences. Although wholesome living conditions contribute greatly in reducing the number of recurrences, it seems to me in the majority of the cases which we see we can count on environmental situations to work against, rather than for us. Therefore, I think it wise to use prophylactic sulfadiazine or penicillin in practically all cases. Both of these drugs are effective, and it falls the individual physician's lot to decide which he prefers with regard to drug sensitivity and resistance of organisms.

Very little mention has been made as to morbidity, but it must be remembered that this is one of the biggest problems in management of this disease. Sufficient time has not elapsed since the use of prophylactic chemotherapy and antibiotics to allow us to prognosticate as to the ultimate outcome for patients so treated, but cumulative reports using sulfonamide drugs prophylactically show a recurrence rate for major episodes of 1.5%. After several more years we should have data offering a much more cheerful prognosis for those who have been attacked by rheumatic fever. From figures obtained prior to the use of such drugs, Wilson has stated that of children affected, 1 out of 20 would die in 4 years; 1 out of 10 would die in 7 years; and 1 out of 5 would die in 11 years after the onset of illness. Let us hope that the coming years will bring a marked improvement over the above prognosis.

In conclusion, I should like to re-emphasize that we are dealing with a very important disease; one which attacks primarily those of the pediatric age group; and one which we must recognize and treat from its onset if we are to improve the prognosis.

TYPHOID FEVER IN CHILDREN IN ARKANSAS *

KATHARINE DODD, M.D., Little Rock

REPORT OF EXPERIENCE AT THE UNIVERSITY HOSPITAL IN 1952

The enteric infections, bacillary dysentery, typhoid and other salmonella infections are always important in a southern climate. The complete eradication of dysentery infection, particularly where fecal disposal is primitive, presents great problems. Since most of the salmonella organisms other than salmonella typhosi have animal as well as human hosts their eradication is also difficult. Typhoid fever may be markedly reduced in incidence through proper disposal of feces and urine, vaccination and the detection and care of carriers. Since every case of typhoid fever may mean the production of a permanent carrier of the organisms it is most important to prevent the occurrence of the disease, and if possible the carrier state.

Typhoid fever is far less common in Arkansas than it was formerly. Nevertheless, in 1951 sixty cases of typhoid fever were reported from the first of the year until the middle of September. In 1952 one hundred and nineteen cases were reported. From January 1 to September 15, 1952, 19 children were admitted to the University Hospital with typhoid fever. The children ranged in age from 6 weeks to 15 years, ten were 5 years of age or under. There were three children in one family, two in two others and a mother and a child in a third. This mother was already ill with typhoid fever at the time her last baby was born; nevertheless, the infant escaped the infection. Three of the patients gave a history of immunization against typhoid. Only one child lived in Greater Little Rock. The source of infection, when it could be found by the health department, was a carrier rather than contaminated water. In at least six cases a history that some member of the family had had typhoid fever many years earlier was obtained. When I was in Cincinnati we saw four infants under one year of age with typhoid fever. In every instance typhoid bacilli were isolated from the stools of an adult in the home, all of whom had had typhoid fever many years before, one as many as forty years.

Of our 19 patients nearly all had typical symptoms of fever, abdominal pain, and distention; the majority had diarrhea. All had palpable livers, but in only about half the patients were the spleens palpable. The majority were found to have a leucopenia, or normal white blood count, but a few had white blood counts as high as 8 - 10,000. An infant of 6 weeks with meningitis had a total white count of 25,000. The diagnosis was confirmed by blood culture in seven instances, by stool culture in 10 instances and by culture of the spinal fluid in one instance. Agglutinins against Salmonella typhosi with the O antigen were found in significant titer in all cases. The history obtained on one patient suggested that he was seen at the hospital for the first time during a relapse of his original infection. Two patients suffered relapses following therapy. All the patients except the infant with meningitis recovered.

Because Reilly [1] had treated children with typhoid fever with terramycin in 1950 with some apparent success, therapy with terramycin was tried on the patients seen early in the year. Three patients who had been ill for from two weeks to four and a half weeks became afebrile within three to eight days. On two children with an acute illness of only four days duration the therapy was changed from terramycin to chloramphenicol after two and four days respectively when no signs of improvement had occurred. In both the temperature became normal four days after chloramphenicol was begun. A third child developed Salmonella typhosi septic arthritis after eight days of terramycin therapy. The temperature fell to normal as soon as chloramphenicol was started and the arthritis apparently healed only to recur later and again respond to chloramphenicol therapy. Unfortunately the infant with meningitis was treated for five weeks with terramycin in spite of failure to respond. Nine children were treated with chloramphenicol alone and the children's temperatures were normal in every instance within three to seven days after the institution of therapy. One child vomited most of his oral terramycin and responded only when chloramphenicol was given by vein. The dose of chloramphenicol was 100 mg. per kilo of body weight on the first day and 50 mg. per kilo thereafter. The medication was continued for at least eleven days except in one patient who was treated for only six days. He was the only patient who suffered a relapse of his infection, with renewed sepsis after his therapy was completed. Although these figures do not prove that chloramphenicol is the drug

* Read before the Seventy-seventh Annual Session, Arkansas Medical Society, Little Rock, April 21, 1953.

of choice in the treatment of typhoid fever we all had the impression that the children treated with chloramphenicol felt well much sooner, ate better and looked better far sooner than those who did not receive this antibiotic. Our experience, that of Reilly and Harrell[2] in this same clinic and of Woodward[3] and many others all show that chloramphenicol has an established place in the treatment of typhoid fever. If it can be found that it's use during acute infection also cuts down on the number of typhoid carriers a great step toward reducing the incidence of typhoid fever in the future would be made. Chloramphenicol therapy does not effect the carrier state once it is established.

In our small series of cases five interesting complications of typhoid fever were seen. A short summary of their course is given.

Typhoid Meningitis

E. B., a 6-week-old negro child, was admitted to the hospital on 2-6-52 with a history of fever and convulsions of five days duration. On examination it was found that his neck was stiff and his fontanel bulging. Lumbar puncture yielded a cloudy fluid with 19,150 WBC per cu. mm., 96% of which were polymorphonuclear leucocytes. The spinal fluid protein was 892 mg. per 100 cc. and the sugar 24 mg. The peripheral blood contained 28,800 WBC per cu. mm. The baby was treated with terramycin, both intravenously and orally for five weeks and finally with chloramphenicol for three days. He failed to improve, his temperature remained high, convulsions continued, opisthotonus became marked and hydrocephalus developed. Repeated cultures of both spinal and ventricular fluid were positive for Salmonella typhosi. Stool and urine cultures were negative. Agglutinins to the O antigen of Salmonella typhosi rose to 1:800 and to the H antigen to 1:320. The child died five and a half weeks after admission to the hospital. Permission for autopsy was not obtained. No source of the infection was found by the Health Department. The child had been delivered at home by a midwife and nursed by his mother with an occasional bottle offered. No others in the family were ill. Unfortunately no inquiry was made as to whether the mother had ever had typhoid fever.

Although infection of young infants with other types of Salmonella[4] notoriously cause meningitis few cases of typhoid meningitis are reported. Perhaps the rarity of typhoid meningitis can be explained by the fact that infection with Salmonella typhosi is much rarer in early infancy than that with other Salmonella. It is unfortunate that the opportunity was lost to see what chloramphenicol therapy might have done for this rare and serious complication of typhoid fever.

Toxic Encephalomyelopathy.

J. W. C., a three-year-old white boy, became ill two weeks before admission to the hospital on 8-1-52 with fever and diarrhea. A convulsion occurred with an early temperature of 105° F. The child soon became stuporous. He was admitted to the hospital at Scott and treated with aureomycin, penicillin and sulfadiazine for two weeks. His doctor, becoming suspicious that the child had typhoid fever, obtained a Widal which was positive, 1:1000. On admission to the University Hospital the child was comatose. He was dehydrated and there were ulcers on both corneas. His upper extremities were spastic with increased reflexes. His right leg was moved little, but the other extremities were in constant motion. The child's temperature was 104° F., the WBC 8,600. He had a mild hypochromic anemia. The blood culture was positive for Salmonella typhosi. Lumbar puncture revealed a clear fluid with 37 WBC, all lymphocytes, and a protein of 87 mg. per 100 cc. The spinal fluid pressure was normal. Therapy with chloramphenicol was started at once. The corneal ulcers were treated with atropine ointment and gavage feedings were given. Fever continued for seven days during which time an aspiration pneumonia occurred. A second lumbar puncture on the third day revealed a spinal fluid similar to the first obtained. By the seventh day in the hospital the child began to improve rapidly and at discharge on the seventeenth day the spinal fluid was normal and the child seemed to have recovered completely.

Although the diagnosis of toxic or post-infectious encephalomyelopathy cannot be proved, this child behaved so like children with encephalopathy seen with other infections, especially measles, that we ascribed his coma and peripheral neurological findings to his infection. Chloramphenicol therapy probably hastened his recovery, and the more than usual delay in fall of temperature may well be ascribed to the encephalopathy and aspiration pneumonia. A sixteen-month-old brother of this patient admitted to the hospital four days after the onset of his typhoid fever was afebrile three days after chloramphenicol therapy was started.

Post-Infectious Psychosis

A. T., a twelve-year-old negro boy, was admitted to the hospital on 6-20-52. He had be-

come ill seven days before with fever, listlessness and vomiting. He was markedly dehydrated and appeared acutely ill. His temperature on admission was 105° F., WBC 4,000. His blood, urine and stool cultures were all positive for Salmonella typhosi. He was started on parenteral fluid therapy at once and oral chloramphenicol given in the usual amounts. Some vomiting occurred and watery diarrhea was intense. The temperature continued high and swinging from 100 to 106 for four days, dropped to normal and showed a slight daily rise for the next three days. The boy seemed lethargic but rational during his fever. As the temperature fell he had almost constant hallucinations, was markedly combative and difficult to manage. This state lasted for a week improving slightly toward the end of that time. At the end of another week he was a most cooperative child, the favorite of the ward.

Typhoid Arthrites

B. G., a five-year-old negro girl, was admitted to the hospital on 7-28-52 with a history of diarrhea and fever of two weeks duration. Her temperature on admission was 102° F., the white blood count 8,550. The child was markedly dehydrated and very listless. Delay in making a diagnosis of typhoid fever coupled with the lingering impression that terramycin might be good therapy for typhoid resulted in her being treated only with sulfadiazine and terramycin for twelve days. The child's temperature remained high but her general condition and appetite improved. On the ninth day after admission her temperature rose to 104° F., her left knee was noted to be red, hot, tender and swollen. Asperation yielded pus from which Salmonella typhosi was cultured. Therapy was changed to chloramphenicol and the usual dose continued for twelve days. The child's temperature became normal by the third day and the knee improved rapidly. Because of crowded conditions in the hospital the child was discharged with some limp still present. She did not return until two weeks later. There were renewed signs of reinfection in the left knee joint and her temperature was again 104° F. The WBC was 14,700. Blood and urine cultures, positive on the first admission, were now negative. Culture of fluid aspirated from the knee was again positive. Chloramphenicol therapy was reinstituted and continued for twenty-one days. At the end of this time the child was in excellent health and there was no limitation in function of the knee.

Although this case might be considered one of relapse it is more probable that chloramphenicol does not clear infection as quickly in a serous cavity as in the blood and that we had not treated her for a sufficient time during her first hospital admission.

Severe Intestinal Hemorrhage with Evidence of Generalized Bleeding

E. S., a four-year-old negro boy, was admitted to the hospital on 6-16-52 with a history of abdominal pain, fever and vomiting, cough and constipation of eight days duration. His temperature on admission was 104.4° F. He was markedly dehydrated, his abdomen was scaphoid and both liver and spleen were enlarged. His WBC was 4,050. A blood culture was negative but stool cultures were positive for Salmonella typhosi. Fluids and terramycin were given by vein for twenty-four hours but as the boy continued extremely ill with high swinging temperature and profuse diarrhea the antibiotic was changed to chloramphenicol given orally. Vomiting continued and by the third hospital day the stools contained massive amounts of blood. The administration of chloramphenicol, 2 gm. a day by vein apparently controlled the infection but the intestinal hemorrhage continued in spite of transfusions of blood and parenteral vitamin K administration. The child went into shock. He vomited blood, bled from the mouth and developed sub-conjunctional hemorrhages. On the seventh hospital day 200 mg. of cortisone was administered intramuscularly and the dosage continued for four days. Within forty-eight hours after the administration of cortisone all bleeding stopped and the boy began to look well. There was no further fever, vomiting or diarrhea and he was discharged ten days later apparently in good health.

Three weeks later he was readmitted with fever and mild diarrhea. Blood and stool cultures were positive for Salmonella typhosi. On chloramphenicol therapy the temperature fell to normal in three days. All symptoms subsided, stool cultures became negative and the child was again discharged apparenty well.

We were at first inclined to ascribe the cessation of bleeding in this case to the cortisone therapy but since intestinal hemorrhage has been reported both in cases treated with chloramphenicol alone and those treated with chloramphenicol and cortisone [5], the assumption is not warranted. Since cortisone does apparently affect the toxic manifestation of typhoid through its action on the host, its use may have played some role in the boy's recovery.

This report again emphasizes the fact that typhoid fever may occur in infants and young children who probably acquire their infection from adults who are carriers of Salmonella typhosi. In spite of the fact that three of the children gave a history of previous immunization against typhoid it suggests that children should always be immunized against typhoid fever when the disease is known to have occurred even years before in some member of their family. It again emphasizes the beneficial effects of chloramphenicol therapy and presents several interesting complications of the disease.

(1) Reilly, W. A. and Earle, A.M.: Treatment of Typhoid Fever with Terramycin. Journal of Ped. 38:428, 1951.

(2) Reilly, W. A. and Harrell, J. A.: Typhoid Fever in Fourteen Children Treated with Chloramphenicol. Journal of Med. 36:440, 1950.

(3) Woodward, T. E., Smadel, J. E., and Ley, H. L., Jr.: Chloramphenicol and other antibiotics in the treatment of typhoid fever and typhoid carriers. J. Clin. Investigation 29:87, 1950.

(4) Abramson, H., Frant, S., and Oldenbusch, C.: Salmonella Infection of the Newborn: Its Differentiation from Epidemic Diarrhea and Other Primary Enteric Disorders of the Newborn. Med. Clin. of North America 23:569, 1939.

(5) Smadel, J. E., Ley, H. L. and Diercks, F. H.: Treatment of Typhoid Fever I) Combined Therapy with Cortisone and Chloramphenicol. Ann. of Int. Med. 34:1,1951. Woodward, T. F., and Others, Typhoid Fever II) Control of Clinical Manifestations with Cortisone. Ann. Int. Med. 34:10, 1951.

ANNUAL COMMITTEE REPORTS

REPORT OF COMMITTEE ON POST-GRADUATE EDUCATION

Arkansas Medical Society

EDWIN V. DILDY, Chairman

The Committee on Postgraduate Education for the Arkansas Medical Society met in conjunction with a Committee from the Arkansas Academy of General Practice and also with the Department of Postgraduate Education of the University of Arkansas School of Medicine on February 2, 1954. Members of the Medical Society Committee present were: Dr. Shelby Hicks of Lavaca, Dr. Robert McDonald of Eudora, and Dr. Edwin V. Dildy of Nashville. The Committee from the Academy of General Practice was represented by Dr. Charles Archer of Conway. The Department of Postgraduate Education from the University of Arkansas School of Medicine was represented by Dr. Willis E. Brown, Director.

During the discussion of the combined committees the following topics were discussed:

The results from a recent questionnaire sent out by Dr. Brown from the Office of Postgraduate Medicine at the University to each member of the Arkansas Medical Society composed of physicians practicing in the State of Arkansas with the following results:

From 1,749 questionnaires sent to physicians of the State of Arkansas there were only 165 replies—10% return. From these replies it was determined that on an analysis 103 wanted recent advances in medicine; about 50 wanted other types of programs; 31 wanted individual work at the University. Of type of departmental work desired 60 wished to have mixed courses and about 55 elected each of medicine, pediatrics, surgery or Ob-Gyn. Only 18 asked for psychiatric training. As to the length of courses in days 50 desired one or two days, which were by preference Wednesday and Thursday. As to the group size 90 individuals wanted limited groups, and only 35 wanted unlimited numbers.

Concerning the above report, Dr. Brown is due much praise for his efforts in obtaining these statistics. It was also observed that since the institution of these Postgraduate Education Training Programs that there has been a decline in the number of doctors participating with each successive year. The Department of Postgraduate Medicine Education was very disappointed in the return of the questionnaires which were mailed out to the doctors over the state.

Due to the fact that 31 individuals asked for individual type of work, Dr. Brown is now planning to set up short courses of individual type of instruction covering as many departments as possible. This program is to be developed as the need and the demand is obtained. Further notice will be given to all physicians when these courses are available. The subject of postgraduate courses was considered, and the following schedule is to be instituted for the remainder of this year at the Medical School.

February 25 and 26—Obstetrics and Gynecology.
March 17 and 18—Pediatrics.
March 31, April 1 and 2—Surgery.
May 5 and 6 (possibly 6th and 7th)—Medicine.
June 13 and 14—Alumni Meeting.

The above dates are approximately correct; however, exact dates will be mailed out, as of previous times, with descriptive programs of each symposium.

COMMITTEE ON RURAL HEALTH

Arkansas Medical Society

B. N. SALTZMAN, Chairman

The Committee on Rural Health consists of the following members: Ben N. Saltzman, M.D., Chairman, Mountain Home; H. H. Atkinson, M.D., Fordyce; Charles R. Henry, M.D., Little Rock; J. D. Ruskins, M.D., Siloam Springs; Robert Hyatt, M.D., Monticello; Julius Helums, M.D., Dumas; J. B. Kirkley, M.D., Jonesboro; Norman Peacock, M.D., Ashdown; Elvin Shuffield, M.D., Little Rock; and W. O. Young, M.D., Russellville. This committee held several meetings during the year in conjunction with the members of an advisory committee, consisting of the following: Charles Reid Henry, M.D., Chair-

man; R. C. Dickinson, M.D., Aubrey D. Gates, Austin Vines, Kenneth S. Bates, Miss Helen Robinson, Mrs. Hazel Jordon, Waldo Frasier, John T. Herron, M.D., Mrs. Mason G. Lawson, Mrs. A. A. Little, Mrs. J. B. Crawford, R. M. Lord, D.D.S., Bryant B. Pake, D.D.S., Maurice J. Friedman, D.D.S., and Mrs. W. W. Grunden.

The meetings were all pointed toward a Third Arkansas Rural Health Conference. They were successful in that the Third Rural Health Conference was held in Little Rock at the Marion Hotel, Tuesday and Wednesday, July 28 and 29, 1953.

The Conference followed the pattern of the two previous conferences, but more opportunity for public discussion was made available. The program was rather comprehensive, as can be noted in the following outline:

The meeting was opened by Dr. R. C. Dickinson, President, Arkansas Medical Society. After some group singing and the invocation, and an address of welcome by the President, a talk on "Rural Health in Three Dimensions" was made by Aubrey D. Gates, Field Director, Rural Health Council, American Medical Association. This was followed by an open forum, "Health Insurance in Review." Discussion leader was Paul A. Miller, Rural Sociologist, Agricultural Extension Service, Michigan State College, East Lansing, Michigan. Consultants were Ellery Gay, M.D., Little Rock; Lambert Schulze, Insurance Executive; Sam Barham, Blue Cross-Blue Shield Executive; John Gilbreath, Director, Arkansas Baptist Hospital; Harvey Combs, Arkansas State Insurance Commissioner, and Howard Browder, representing the A.M.A.

Following this, a discussion on "Problems of Aging and Chronically Ill" with Ben N. Saltzman, M.D., Mountain Home, the lead-off speaker, and the "Problems of Building a Home for the Aging," discussed by Reverend Clarence Horst, Mountain Home. Moody Moore, Director, Hospital Division, Arkansas State Board of Health, finished the discussion with a talk on the "Requirements for Nursing Home Facilities, Construction and Operation."

The evening program consisted of a dinner, and entertainment by the **Marked Tree Ensemble** and an inspiring and entertaining address by Kenneth McFarland, Ph.D., Topeka, Kansas. He talked on Americanism.

The morning program, presided over by Mr. Waldo Frasier, consisted of a discussion on "Rural Sanitation and Hygiene," with particular emphasis on: "Dental Problems," by H. S. Dwyer, D.D.S., dental director, Arkansas State Board of Health, "Rural Sanitation," by Carol French, director of the Division of Water and Sewage, Arkansas State Board of Health, and "Problems in Rural Schools," by Dean Whiteside, State Supervisor of Rural Education, State Department of Education. John T. Herron, M.D., State Health Officer, acted as consultant.

Miss Helen Robinson, Health Education Specialist, Extension Service, University of Arkansas, presided over a group presentation by people from Columbia County. The title of this was "What's Next?"

Mr. Paul A. Miller was the discussion leader throughout the program, and also summarized the work of the conference.

Dr. Elvin Shuffield, Little Rock, deserves particular credit for the excellent presentation of exhibits at the meeting. The organizations that held exhibits were: The State Health Department, the Arkansas State Dental Association, the Medical Technicians, Blue Cross-Blue Shield, the Arkansas State Nurses Association, the Arkansas League for Nursing, the Arkansas Farm Bureau Federation and the Women's Auxiliary to the Arkansas Medical Society.

Attendance at the conference was very good, with over 500 registrants. More physicians were represented at this conference than at any previous one. There were 72 members of the Arkansas Medical Society represented.

The lessons learned from the conference were these: 1. Greater physicians participation is necessary. 2. More male farm people should be present. 3. Greater effort should be made to have more lay people represented.

The discussion indicated that the conference was producing the desired effect, namely that of interesting the people of Arkansas in rural health problems.

Plans are now being formulated for the holding of another conference, in July or August of this year. The committee on Rural Health has been active in other aspects of the multiple health problems of Arkansas.

The Committee sponsored a hemoglobin testing program at the Home Demonstration Conference held in Arkansas. Members of the committee have been called on to give advice and to act as moderators in discussions held over the State by lay groups. The people of Arkansas are becoming "Rural Health Minded" and that is the prime purpose of this committee.

Chairman Saltzman attended a conference for officers of Rural Health Committees in Birmingham, Alabama, on January 10, 1954, and exchanged ideas with Rural Health representatives from other states.

In conclusion, I want to take this opportunity to thank Dr. Charles Henry, member of the Council on Rural Health of the American Medical Association; Mr. Aubrey Gates, Field Director on the Rural Health Council of the American Medical Association; Mrs. Mason Lawson, member of the Woman's Auxiliary to the Arkansas Medical Society; Miss Helen Robinson, Health Education Specialist; Mr. Austin Vines, Associate Director, Agricultural Extension Service; Dr. Maurice J. Friedman and Dr. Bryant B. Pake of the Arkansas State Dental Association, and the many other members of the advisory committee who have made our conferences possible.

The Committee on Rural Health is open to suggestions from any member of the Arkansas Medical Society; concerning our methods of operation, and the conduct of the Rural Health Conferences. We welcome new ideas and new methods to approach the problem of Rural Health.

REPORT ON THE FOURTH NATIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS

By H. W. THOMAS
Liaison to the Joint Coordinating Committee for Promoting Health Education in the Schools

Sponsored by the Bureau of Health of the American Medical Association, the Fourth National Conference on Physicians and Schools was held at Highland Park, Illinois, September 30 to October 2, 1953. A total of 197 participants from 38 states and Washington, D. C., were registered. These represented medical societies; state, local and county health departments; education departments, state and local; and 22 national organizations.

The purpose of this conference was a continuation of the policy of A.M.A. to encourage and promote better school health programs throughout the United States.

This meeting got off to a quicker, much more informal start than had previous conferences due primarily to the fact that a large number of the group had worked together in previous conferences held in 1947, 1949, and 1951—at two-year intervals.

The participants were divided into eleven working groups each discussing specific phases of the school health program and making recommendations on the specific problem considered. At the close of the conference a summary of the deliberations and recommendations of each group was presented to the entire assembled group for further discussion and approval or disapproval. Each of these eleven discussion groups was presided over by a consultant who served as chairman. Dr. Louis Hundley of our own State Society served as a consultant and was chairman of the group considering "School Health Problems in Rural Areas." Other groups discussed "School Health Problems in Large Cities," "The Physician as a Consultant in School Health Education," "Mental Health in the Classroom," "Health Aspects of School and Community Athletic Programs," "Advisory Health Councils and the School," "Interchange of Health Appraisal Data on Children," "Medical Society School Health Committee," "Coordinating Health Records and Examinations," "Organizations and Conduct of State and Local Conference on Physicians and Schools," and "Health of School Personnel."

The results of the conference will be published in booklet form, as have the results and recommendations of the three previous conferences. These can be obtained, along with a great deal of other valuable information on the subject of School Health Programs from the Bureau of Health Education of A.M.A. It is not within the purview of this report to present in detail these findings and recommendations.

Recommendations: It is recommended that the Arkansas Medical Society establish a Committee on School Health—(or a sub-committee) to consider nothing except school health programs in cooperation with analogous bodies of the State Education Department and the State Health Department. It is further recommended that committee members be appointed to staggered terms so that a continuing, sustained program and definite policies on this subject can be developed by the Arkansas Medical Society, without periodic changes, reversals, and false starts.

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION

By DR. H. W. THOMAS, Committee Chairman

Seldom has any committee of the Arkansas Medical Society considered problems of such a highly controversial nature as the problems discussed and dealt with by this committee this year. This committee has as members the following: Dr. John Smith, Little Rock; Dr. Cliff Long, Ozark; Dr. James Kolb, Clarksville; Dr. Roger Dickinson, DeQueen; Dr. Jack Kennedy, Arkadelphia, and Dr. H. W. Thomas, Dermott, as Chairman. At the outset I want to emphasize that the deliberations of this committee were entered into by every single member. The conclusions reached and recommendations made are not those of the chairman, or any individual member of the committee. They represent the recommendations of the committee as a whole, arrived at after much discussion, arguing, and "voting," and after seeking the advice and help of the entire membership of the Arkansas Medical Society, as you are already aware, through the questionnaire which was sent out regarding the medical center now under construction.

On July 26, 1953, the committee met at the Majestic Hotel in Hot Springs. This meeting was devoted to a consideration of the preceptorship program of the senior year in medical school. It was recommended that this program be continued and the number of physicians participating as preceptors be increased.

Since that time the committee has met each month for a total of seven meetings and several other meetings are currently scheduled, the results of which will be reported on in a supplementary report to be filed later. All the meetings since August 16, 1953, have been devoted to making recommendations for the operation of the new medical center. Questionnaires have been sent to other medical centers. Personal visits have been made to hospitals and medical centers in neighboring states. A survey is at present being conducted in an attempt to determine the attitude and opinions of the taxpayers and voters of the state, without whose support there will be no medical center. The committee is most gratified that 303 physicians in Arkansas out of 1,230 responded to the questionnaires. And it is still more gratifying to note that the opinions reflected by the survey, by a margin of about 4 to 1, coincide with the recommendations which we herewith submit to the House of Delegates of the Arkansas Medical Society, (it is of interest to note that there is a close parallel between opinions of physicians in Rural Arkansas and physicians in Pulaski County).

The committee considered the following subjects:

1. Methods of financing the new medical center.
2. Classification and admission of patients to be treated and basis of determination of fees to be charged.
3. Establishment of a General Practice Residency Program.
4. Decrease in the excessive out patient load of patients being seen at present.
5. Remuneration of full time faculty members engaged in outside activities.
6. Policies governing assignments of part-time faculty members.
7. Possibility of establishment of a Dental School as a part of the Medical Center.

The following conclusions and recommendations were arrived at:

I. It is recommended that the Medical Center be financed as at present through:
   - A. Tax moneys appropriated by the legislature.
   - B. Fees collected from patients as hereinafter recommended.
   - C. Vigorous efforts by the Arkansas Medical Society and the Administration of the Medical Center to obtain endowments.

II. It is recommended that:
   - A. A position of 'Admitting Physician" be established to effect centralization and efficient screening of patients.
   - B. An attempt be made to decrease the admission of patients to the hospital through the clinic and increase the number of patients coming from throughout the state.
   - C. Patients be admitted by referral from practicing physicians and through the clinic.
   - D. Bed the allocated on the basis of the following priority: Absolute Emergency, Urgent, Elective.
   - E. The professional and lay public be educated as to the importance of admission of only patients of

teaching value. (Other patients should be the responsibility of County Welfare.)

F. A fee system for clinic and hospital patients be established which evaluates the economic status of patients throughout the year instead of only on initial registrations.

The present system of Four Categories of patients is favored.

"A" Patients—Strictly charity but a small registration fee of 25c or 50c to be charged for each visit.

"B" and "C" Patients—Those who can afford to pay for part of their services (drugs, X-Rays, cast materials, etc.) but not to be charged for services of staff members.

"D" Patients—Full pay patients, including professional services in accordance with prevailing rates of Pulaski County Medical Society; emergencies and patients requiring special diagnostic procedures not available in the Little Rock area (only by referral).

III. It is recommended that a General Practice Residency Program be established offering one year of residency training after a year of rotating internship. It is emphasized that by far the majority of surgery, obstetrics, gynecology, oto-rhino laryngology, internal medicine, proctology, and such work in Arkansas is being done by general practitioners and will continue to be done by general practitioners. It is felt that too much emphasis has been placed on training specialists, many of whom will leave Arkansas, and not enough emphasis has been devoted to adequate training of general practitioners for the work which they must of necessity do. It is strongly recommended that these men, in their second year of training not be relegated to positions analogous to a glorified second intern, merely spending another year holding retractors, serving as 2nd, or 3rd assistants, and receiving their training for general practice on the "fringe" of specialty training programs. It is recommended that these men be taught to do, and allowed to do, under proper supervision, a thorough exploratory laparotomy, handle an acute traumatic abdomen, treat the acute surgical emergencies that will be encountered in the small communities of Arkansas in which they will practice; treat the acute medical emergencies that they will later face alone and be offered a general practice residency that actually prepares them for general practice. It is anticipated that department heads in charge of residency training programs will oppose this recommendation with the argument that they "don't allow the second year men in their own Specialty Residency Program do such procedures so why should they devote such time to a G.P. resident." This proposal is submitted for your consideration.

IV. It is recommended that a concerted effort be made to reduce the excessive out-patient load by:

A. Proper screening of patients.

B. Charging the small registration fee for each visit previously referred to.

It is felt that this will result in many of these patients going back to their private physicians where they belong in the first place.

V. It is recommended that the Medical Center obtain faculty members who are fully qualified, who are a credit to their various specialties and who are a credit to the Medical Center. It is fully realized that men of this caliber are becoming increasingly hard to obtain because of the salary limitation imposed by available funds from tax moneys. It is felt that specialists who head departments should be paid about the average of what comparable specialists in private practice in Little Rock earn (not the highest figure—nor the lowest).

It is recommended that faculty members be allowed to see private patients on a referred consultation basis in order to augment the salaries allowed by the legislature. It is recommended that they be allowed to see patients from the metropolitan Little Rock area only when they are referred by practicing physicians engaged in the same specialty. It is further recommended that they be allowed to see patients in consultations on referral by any practicing physicians from outside the metropolitan Little Rock area. Further, it is recommended that consultations' fees charged be at the upper limits of the fee scale and that the money collected be paid into a non-profit foundation which then pays the various faculty members on a pro rata basis up to a previously agreed upon limit or ceiling, any excess fees being retained by the foundation for research or as subsequently directed.

VI. It has been called to the attention of this committee that some physicians object to the practice of hiring some practicing physicians from the Little Rock area as part time faculty members. The committee feels that inasmuch as the services of men in sub-specialties are not required on a full time basis the policy of employing part time instructors which has been in effect for at least twenty years, is adequate and needs no revision.

VII. The committee made inquiries into the possibilities of a Dental School in connection with the Medical Center. The Arkansas Dental Society officially informed us that there are no plans either at present or projected for the future as far as can be determined for a dental school in Arkansas. Accordingly no recommendation is submitted on this subject.

This completes the report of the deliberations of this committee to this point. It is fully realized that there are many differences of opinion on these highly controversial questions. These recommendations are submitted to the House of Delegates for consideration with the hope that there will be earnest consideration, discussion, and constructive criticism.

COMMITTEE ON ANNUAL SESSION 1954

FOUNT RICHARDSON, Chairman

The essential report of the Annual Session Committee is, by definition, its program, which appears in another part of the Journal.

To effect the year's program called for two meetings during the year, the first of which drafted the overall problem and then its solution, and the second one, which perfected and completed the plans.

The work of the Annual Session Committee is facilitated by the help of the Executive Secretary, Mr. Paul Schaefer, and his secretarial staff, whose experience is wide and whose suggestions made easy many of the difficulties we encountered. Their assistance is gratefully acknowledged.

Our Society is indebted to the Sebastian County Medical Society, the Goldman Hotel, the Ward Hotel, the "Southwest American," along with others, and most of all to the fine array of speakers who gave us our program.

REPORT OF COMMITTEE ON PUBLIC RELATIONS

DALE ALFORD, Chairman

The Committee on Public Relations is pleased to report a positive program for the year.

The Second Annual Public Relations Institute presented some of the finest speakers heard during the year on the subject of medical public relations.

During the year, we have instituted a doctor's radio forum as a public service. All county society groups have cooperated one hundred per cent in this effort. Its programs are now outlined for a year in advance.

A member of our committee has maintained consistent good reading in our regular P.R. column in the Journal. Also, numerous articles have appeared in several state papers affecting our various "purposes."

Numerous radio programs have been broadcast over the various local stations presenting the professionally prepared programs released by the American Medical Association.

For the first time in our history, the nurses' association has been represented on the program of a society—sponsored medical meeting. The nurses have unanimously applauded this move. Throughout the year we have maintained contact through a medical society representative with the various professional and Auxiliary groups.

The Public Relations Committee is enthusiastic in the support of all of the other committees of the Society and desires to serve one purpose—to better our relations as physicians among ourselves and our patients.

REPORT OF ADVISOR TO ARKANSAS PRACTICAL NURSES ASSOCIATION

HOYT CHOATE

This post fell to me upon the death of Dr. William Fred Harris. A review of the year's work showed that Dr. Harris had been present at all important committee and board meetings during the year. He had been most helpful in arranging the program of the National Meeting of the Practical Nurses held in Little Rock late in the fall of 1953.

I attended the Board Meeting last January, 1954. This group has formed a good strong organization with capable officers. The Arkansas group has pioneered in education for practical nurses, standard fee schedule, ethical codes, and are now working on a project for Civil Service recognition under the able leadership of the President, Mrs. Georgia Lee Russell. I am truly enthusiastic about this organization and its place in the nursing field in Arkansas in the future.

REPORT OF THE STATE MEDICAL BOARD OF THE ARKANSAS MEDICAL SOCIETY

JOE VERSER, Secretary

The Secretary of the State Medical Board makes the following report of the activities of this Board since the last meeting of the Arkansas Medical Society.

The officers of the Board are as follows: Dr. G. D. Murphy, Jr., President; Dr. M. L. Harris, Vice-President; and Dr. Joe Verser, Secretary-Treasurer. Drs. H. J. Hall, Frank M. Burton, Jeff Baggett and Wm. A. Snodgrass, Jr., members, and Campbell and Campbell, Attorneys for the Board.

The Board investigated every case of violation of the Medical Practice Act reported to the Secretary during the year. One court conviction was obtained and one case is now pending.

On May 30, 1953, the Secretary wrote the Attorney General asking that his office make an investigation relative to Jacob S. Schirmer, Corning, Arkansas, who supposedly held license from the State Eclectic Board. The Attorney General was advised that this office had received information to the effect that Schirmer's license was fraudulently and illegally issued to him. It is the Secretary's understanding that the investigation has been completed and charges are now pending against Schirmer.

The 1953 Legislature created the Board of Physical Therapy Examiners to be composed of members of the State Medical Board and three Physical Therapists appointed by the Governor. This Board was organized in July with the following officers: G. D. Murphy, Jr., M.D., President; Miss Effie Knox, Vice-Chairman; and Joe Verser, M.D., Secretary. Thirteen Physical Therapists have been licensed to date and six applicants were disapproved.

A yearly financial report of the Board's activities, as prepared by Winter, Johnson and Company, C.P.A. Accountants, was sent to and approved by the Council of the Arkansas Medical Society.

This Board no longer accepts licentiates of the New York Board without examination. This action was taken since the New York Board now grants licensure to a large number of physicians who are graduates of unapproved medical schools, and not qualified to meet the requirements of our Board as set by law.

Following is a report of the Board's proceedings—February 1, 1953—February 1, 1954.

Physicians registered for 1954:

Resident	1,194
Non-resident	376
Physicians licensed by Examination	81
Physicians licensed by Reciprocity	38
Physicians certified to other states	84
License revoked for non-payment of annual registration fee	Incomplete
License suspended for non-payment of annual registration fee	Incomplete
Physicians placed on probation for violation of Federal Narcotic Act	4
Court convictions obtained for violation of Medical Practice Act	1
Cases pending for violation of Medical Practice Act	1

Following is a financial report covering the period February 1, 1953, to February 1, 1954. A yearly audit by a Certified Public Accountant will be made in June, 1954.

Cash on hand—Feb. 1, 1953		$17,551.10
Bonds—Series E, purchase price		6,000.00
Collections from the following—		
Registration Fees	$4,816.35	
Reciprocity Fees	2,150.00	
Certification Fees	1,011.00	
4-year Exam. Fees	570.00	
Final Exam. Fees	570.00	
Primary Exam. Fees	990.00	
Duplicate Certificates	10.00	
Directories Sold	5.50	
Physical Therapy Fees	95.00	10,217.85
Total		$33,768.95

Expenditures—

Salary—Sec'y & Expense of Board Members	$5,406.84	
Attorney's Fee & Travel Expense to Meetings	853.35	
Office Rent	180.00	
Dues of Federation of State Board of U. S.	50.00	
Office Expense — Printing, Tele., Bond, Postage, Frt., Stationery, and Withholding & F.I.C.A. Taxes	2,241.81	
Refunds	84.00	
C.P.A. Audit	150.00	
Investigations (Pinkerton Detective Agency)	812.63	
	$9,778.63	
Total Expenditures		$ 9,778.63
Bonds on Hand		6,000.00
Cash Balance in Bank		17,990.32
		$33,768.95

REPORT OF STATE HEALTH DEPARTMENT
Calendar Year—1953

J. T. HERRON, State Health Officer

Of the common communicable diseases of childhood, only measles and German measles were reported in much greater numbers during 1953 than in the previous year. Most of the communicable diseases showed slight to moderate decreases in the number of cases reported. This is true for chickenpox, diphtheria, miningoccoccal infections, mumps, whooping cough, poliomyelitis, and typhoid fever. No local malaria transmission was noted during the year, and no smallpox was reported for the fifth straight year.

The Health Department found and brought to treatment 1,926 cases of syphilis and 1,642 cases of gonorrhea for the calendar year 1953 as compared with 3,003 cases of syphilis and 1,873 cases of gonorrhea found and brought to treatment during calendar year 1952. Indications are that there is a decreasing prevalence of venereal diseases, especially syphilis.

During the period of July 1, 1952, through June 30, 1953, 165,577 individuals were X-rayed in mass chest X-ray surveys. Of this number 918 are classified as tuberculosis suspects and 461 were provisionally classified as having significant tuberculosis. All of the above persons were referred to their family physicians for further investigation and a final diagnosis. It is significant that more than half of the new cases discovered in the mass surveys were found in an early stage.

Screening programs for the detection of defective hearing and vision were conducted in schools in 39 counties, with approximately 30,000 hearing tests and 50,000 vision tests being given. Prenatal and/or well-child clinics were conducted in 31 counties with approximately 4,000 prenatal cases and 6,000 infants and pre-school patients in attendance. 411 midwives were granted permits to practice midwivery and were placed under supervision. Approximately 30 newborn infants with malformations or birth injuries were reported each month to the Crippled Children's Division of the State Department of Public Welfare. Pamphlets for publication were prepared on the following: Prenatal Care for Negroes, Care of Premature Infants, and Care of the Midwife Bag.

During 1953 the Bureau of Laboratories conducted approximately 280,000 tests and examinations to assist the various divisions of the State Health Department in the diagnosis and control of communicable diseases. Included in this figure are 20,000 chemical and bacteriological tests on public and private water supplies and 600 animals examined for rabies. **Of these animals approximately 200 or 1/3 showed positive evidence of the disease.** In addition to the routine work, the laboratory staff has tested and approved 85 private laboratories for the performance of premarital blood tests as required by Legislative Act 120 of 1953. Over 40 of these laboratories have had personal visits and inspections by our own serologists. In November a workshop and refresher course on the latest techniques of syphilis serology was conducted for 75 medical technicians from all parts of the state.

Safe water supplies under the supervision of the State Health Department are now available in 205 towns. Major improvements in 1953 include new water system for Nettleton and Taylor and new purification plants at Benton, Camden, Clarksville, and Tuckerman. Noteworthy improvements were made to the existing water supplies. Healthful recreational facilities were increased by the construction of modern swimming pools in six towns. The construction of new sewerage systems at Hazen, Nettleton, Decatur, Hampton, and Taylor and the construction of modern sewage treatment facilities at Gurdon, Rogers, Russellville, Star City, Stuttgart, and Fordyce was a major public health improvement. Dangerous or unsafe plumbing practices have been reduced considerably through enforcement of the state's new Plumbing Law, under which 1,655 plumber's license were issued (1,554 in 1952) and more than 800 plumbing installation inspections made. The health and safety of the citizens of the state was protected by the condemnation of 17,000 pounds of dry food and 900 cases of canned food which were found to be dangerous or unfit for human consumption.

COMMITTEE ON TUBERCULOSIS
Arkansas State Medical Society

J. D. RILEY, Chairman

The Committee on Tuberculosis of the Arkansas Medical Society met at the Arkansas Tuberculosis Sanatorium on August 5, 1953.

The following action was taken by the committee and all motions and resolutions were passed unanimously.

A motion was passed approving a plan to write an article on the tuberculosis problem in Arkansas to be published in the Journal of the Arkansas Medical Society, as discussed with Mr. Paul Schaefer, executive secretary of the Arkansas Medical Society.

A resolution was passed by the committee approving the action of the State Board of Health in rescinding Section "F," Chapter XXXI, of the 1952 Revision of the Rules and Regulations of the State Board of Health in regard to tuberculosis, entitled "Procedure when patient is a health menace to others," until such a time as the State of Arkansas provides a place for the care and treatment of recalcitrant tuberculosis patients. Section "F" referred to above permitted any local health authority to petition the court and request an order to sentence any person to the sanatorium who had tuberculosis and who was considered a menace to others, and that the sanatorium was compelled to receive them.

A motion was passed requesting Dr. A. C. Curtis, director of the Division of Tuberculosis Control of the State Health Department, to make a more equitable distribution

of the X-ray clinics and that X-ray clinics be provided at the earliest possible time in the northwest portion of Arkansas, and in Logan County, in which the Sanatorium is located.

The use of BCG vaccine among medical students, student nurses, etc., was discussed and a motion was passed as follows: It is the opinion of this committee that the BCG vaccine prophylactic treatment for tuberculosis in our present state of knowledge is not to be applied generally, particularly to student nurses, medical students, and others who may be exposed to open cases of tuberculosis without sufficient knowledge of their contact, and that such treatment should not be used until it is established as of definite and unmistakable benefit to the persons vaccinated.

There was discussion as to the possible solution of the problem of hospitalization of the recalcitrant tuberculosis patients and the following motion was passed:

"The members of the Committee on Tuberculosis of the Arkansas Medical Society realize that some of the recalcitrant tuberculosis patients should be forced to accept hospitalization and it is suggested by the committee that provision be made either in the new Medical Center, Little Rock, or at the State Hospital for Nervous Diseases for these particular cases, when approved for hospitalization by the superintendent of the Arkansas Tuberculosis Sanatorium or the superintendent of the McRae Memorial Sanatorium for Negroes, since it is not feasible at this time to hospitalize such patients either at the Arkansas Tuberculosis Sanatorium or the McRae Memorial Sanatorium, and this committee pledges to the Arkansas State Board of Health its full cooperation."

The committee approved the National Tuberculosis Association's classification of tuberculosis.

Following the meeting of the committee on August 5, the Chairman, Dr. J. D. Riley, wrote a letter to the secretary of each county medical society regarding the tuberculosis problem in Arkansas and requested that it be read at the next regular meeting of their society; also included with the letter was a copy of the minutes of the meeting.

As was agreed at the meeting of the committee, Dr. J. D. Riley wrote an article entitled "The Tuberculosis Problem in Arkansas" and it was published in the October, 1953, issue of the Journal of the Arkansas Medical Society.

We have cooperated with the members of the Medical Society, the sanatoriums of Arkansas, the Tuberculosis Control Division of the State Health Department, and the Arkansas Tuberculosis Association.

REPORT OF INDUSTRIAL HEALTH COMMITTEE

Arkansas Medical Society

H. E. MOBLEY, Chairman

The Industrial Health Committee of the Arkansas Medical Society met at the Hotel Marion, Little Rock, Arkansas, at 2 p.m., July 12, 1953.

Dr. S. B. Thompson of Little Rock was elected secretary of the committee.

At the request and recommendation of the Council of the Arkansas Medical Society, the mechanics of a Medical Arbitration Commission was taken up and placed into effect. The functions of this Commission were to arbitrate disputes arising in connection with compensation claims. The Council of the Arkansas Medical Society placed into effect the recommendation of the Industrial Health Committee.

The following were appointed to this Commission:

Dr. John D. Olson, Fort Smith, Arkansas.....5 years
Dr. A. D. Cathey, El Dorado, Arkansas.....5 years
Dr. Thomas M. Durham, Hot Springs, Arkansas....4 years
Dr. R. C. Shanlever, Jonesboro, Arkansas.....4 years
Dr. George B. Talbot, Pine Bluff, Arkansas.....3 years
Dr. Joseph A. Buchman, Little Rock, Arkansas....3 years
Dr. J. Max Roy, Forrest City, Arkansas.....2 years
Dr. T. L. Adair, Bald Knob, Arkansas.....2 years
Dr. N. B. Daniels, Texarkana, Arkansas.....1 year
Dr. D. L. Owens, Harrison, Arkansas .....1 year

It was also recommended that the program committee give consideration each year for an outstanding speaker to appear before the Arkansas Medical Society during the annual meeting to discuss industrial health and the compensation laws. The program committee for 1954 was very generous and has provided time for this subject. Mr. Peel will appear on the program.

It was also recommended that each member of the committee make every effort possible to improve labor relations between laborers and the medical profession. It was also recommended that we urge each member of the medical society to do likewise.

The committee also recommended that we should have representation at the Industrial Health Meeting of the A.M.A. in Louisville, Kentucky, in February.

On October 18, 1953, the Chairman of the Industrial Health Committee called a meeting of the Arbitration Commission which had been appointed by the president, for the purpose of organization. Dr. Joseph A. Buchman of Little Rock was elected general chairman, and Mr. B. M. Magar was elected secretary.

ARBITRATION COMMISSION

There will be one medical representative from each Councilor District and two representatives selected by the Claim Managers Council of Little Rock, Arkansas. Whenever a case is brought before the Commission, the permanent medical representative from the Council or District involved will serve as Chairman and two other physicians from that Council or District will be designated by the Permanent Chairman of the Commission as a whole to serve with him for that case only. The two Claims Representatives on the Commission will serve with these three to constitute a board of five members—three doctors and two claims men.

A Claims Representative will be the Secretary of the Commission and of each board for each case.

This plan was adopted unanimously on motion by Dr. Olson. The Secretary of the Committee was authorized to write a letter to the Chairman of the Council of the Arkansas Medical Society notifying them of this action. The following procedure of submission of claims to the Commission was adopted by the Committee: Any physician or insurance carrier having a medical dispute may submit the dispute to the Arbitration Commission for settlement. Either the physician, the insurance carrier, or the Workmens Compensation Commission may get a dispute before the Committee by writing to either the Chairman or Secretary of the Commission, stating the name of the adverse party and the nature of the dispute.

The Chairman will set a date for hearing by the Committee and the Secretary will notify both parties giving at least ten days notice.

Either the physician or insurance carrier may appear in person or may submit a written statement of their position.

The Committee may make such investigations that they consider necessary to enable them to make a fair decision.

Both parties will be furnished with a written opinion of the Committee.

The jurisdiction of this Commission will be as follows:

1. Those cases where it is complained that the insurance carriers have unreasonably interfered with what is properly in the discretion or control of the attending physician.
2. Those cases wherein the insurance companies complain that the attending physician has neglected to furnish medical reports in Workmens Compensation cases.
3. Any situation in which it is claimed that there has been a violation of medical ethics with the provision that any facts relative to such violation of medical ethics be referred to the proper Committee of the State Medical Society.
4. Differences that may arise between the attending physician and the insurance carrier relative to remuneration. It was the feeling of the Committee that for such a Commission to work effectively that both the physician and insurance carrier involved are and must be bound by the decision of the Arbitration Commission.

BUDGET COMMITTEE

J. J. MONFORT, Chairman

The Budget Committee respectfully submits the following proposed budget for 1954:

Income

Membership Dues		$27,225.00
Journal Advertising		15,000.00
Interest on Bonds		260.00
Annual Session—Exhibit Booths		720.00
Annual Session Registration		2,000.00
A.M.A. Reimbursement		292.45
		$45,497.45

Expenses

Salaries	$11,567.50	
Journal Expense	13,000.00	
Travel	4,500.00	
Telephone and Telegraph	1,100.00	
Office Supplies & Expenses	950.00	
Postage	1,100.00	
Dues and Subscriptions	150.00	
Rent	600.00	
Taxes	180.00	
Contributions	300.00	
Annual Session	2,400.00	
Rural Health Committee	500.00	
Public Relations Committee	1,200.00	
Stationery and Printing	700.00	
Auxiliary	1,100.00	
Special Committees	100.00	
Auditing	100.00	
Miscellaneous	300.00	
Bond Premiums and Insurance	55.00	
Reserve for Legal Services	2,650.00	$42,552.50
Balance		$ 2,944.95

REPORT OF THE CANCER COMMITTEE OF THE ARKANSAS MEDICAL SOCIETY

C. A. ARCHER, JR., Chairman

At a call meeting the Cancer Committee of the Arkansas Medical Society was held in Conway October 11, 1953, with representatives of the Cancer Commission of Arkansas and the Division of American Cancer Society.

After some lengthy discussion, it was decided that the Committee on Cancer Control should organize a coordinating committee to coordinate the activities of all organizations in the state concerned with cancer, especially the Arkansas Division of the American Cancer Society and the State Cancer Commission, and to consist of the following members: One doctor and one layman from the Arkansas Division of the American Cancer Society; one doctor from the State Cancer Commission; the entire Committee on Cancer Control.

The Coordinating Committee was organized with representatives from the above group on November 22, 1953, to form a coordinating committee on cancer. The following officers were elected:

Chairman—C. A. Archer, Jr.
Vice-Chairman—Ed Gray.
Secretary—W. H. Handley, Jr.

Discussion was held on professional education and the following methods were suggested:

1. Report to the House of Delegates of the Arkansas Medical Society.
2. Articles in the Journal of the Arkansas Medical Society.
3. Regional meetings with a group of speakers.

It was decided to present such a program under the joint sponsorship of the committee on cancer control, Arkansas Medical Society, and the Arkansas Division, American Cancer Society, at coming Councilor District Medical meetings to be held in El Dorado and Monticello.

The tentative program is to consist of a presentation of the film, "The Silent Shadow," with talks on the Surgical and Roentgenological phases of carcinoma of the lung by Peter O. Thomas and Ed Gray. The activities and functions of the cancer organizations is to be presented by W. R. Brooksher.

REPORT OF THE EXECUTIVE SECRETARY

PAUL C. SCHAEFER

At the end of 1953 there were 1,096 dues paying members of the Arkansas Medical Society. Eighty-four physicians had been granted Life Memberships and fifty members were granted Affiliate status, totaling 1,230 active members for the year.

Thanks to the cooperation of State and County Medical Society officers, the number of A.M.A. members from Arkansas has steadily increased. In 1951 there were only 803 members of the American Medical Association who were from Arkansas. In 1952 the membership had grown to 912. On December 31, 1953, the A.M.A. rolls carried 1,039 from Arkansas.

The task of collecting dues for the American Medical Association has been unusually difficult during the past year due to the fact that the national organization is making a concerted effort to bring all memberships up to date. In some cases this involves delinquencies dating back to 1950. The age of these accounts plus the fact that the rules for paying delinquent accounts have changed several times often leads to misunderstanding. It is hoped that the members understand that, though the State Headquarters carries the burden of correspondence on this matter, we simply act as the agent of the American Medical Association, and attempt to be of assistance in straightening out the dues accounts.

The specialty cards sent out by your headquarters have been of great assistance in locating specialists and general practitioners, answering questions of other organizations and the public. Members who have not yet returned their cards are urged to do so.

The use of new, permanent, life membership cards, laminated in plastic has been instituted. It is hoped that they have proved more attractive to the life members. The use of a permanent card, which needs be issued only once, will reduce the administrative detail of the headquarters.

The advice, assistance and encouragement of the Executive Committee and the Council have been gratifying, making the work of the headquarters staff easier, interesting and more enjoyable.

COMMITTEE ON CIVILIAN DEFENSE AND DISASTER RELIEF

BROOKS R. TEETER, Chairman

This committee has taken no action this year.

REPRESENTATIVE TO THE ARKANSAS STATE DENTAL ASSOCIATION

JOHN E. GREUTTER

There have been no matters requiring active coordinated effort between the Arkansas Medical Society and the Arkansas Dental Association during the past year.

COMMITTEE ON HOSPITAL RELATIONS

A. S. KOENIG, Chairman

There were no problems presented to the Hospital Relations Committee during the year 1953 and no meetings were held.

COMMITTEE ON VETERANS ADMINISTRATION

W. J. BUTT, Chairman

There has been no meeting or action by the Committee on Veterans Administration during the past year.

COMMITTEE ON CHILD WELFARE

WM. A. SNODGRASS, JR., Chairman

The committee has not been called upon for any activity this past year.

REPORT OF THE ADVISOR TO THE STUDENT A.M.A. FROM THE ARKANSAS MEDICAL SOCIETY

L. H. McDANIEL

As advisor to the Student A.M.A. appointed by Dr. R. C. Dickinson, President of our State Medical Society, I wish to make the following report. We are pleased to recognize the spirit of cooperation between the members of the Arkansas Medical Society, the faculty and the student body of our School of Medicine. We cannot see nor can we anticipate any circumstance that would mar or lessen this spirit of mutual cooperation and friendship between the above named groups. We believe that there is less misunderstanding this year between these groups than has been the case in many years. Your advisor wishes to report that he and our able president were invited and attended a faculty meeting a few days before commencement in June. At this time some problems were presented regarding a group of the prospective graduates. Your advisor wishes to report that the president and I were extended the most courteous and considerate treatment by the faculty and he further wishes to report that the problems were solved to the satisfaction of all concerned.

REPORT OF THIRD COUNCILOR DISTRICT PUBLIC RELATIONS COMMITTEE

M. C. JOHN, Chairman

There have been no complaints reported in this district during the past year. All county members of this committee were contacted through correspondence and each reported that they had had no cases to be brought to their attention.

REPORT OF THE SEVENTH COUNCILOR DISTRICT PROFESSIONAL RELATIONS COMMITTEE

J. W. KENNEDY, Chairman

There has been only one case brought up before this committee and it was disposed of locally and through our state attorney.

REPORT OF EIGHTH COUNCILOR DISTRICT PROFESSIONAL RELATIONS COMMITTEE

HENRY G. HOLLENBERG, Chairman

This committee consisting of Dr. Joe Sanderlin, Dr. Fred Harris and the undersigned suffered the loss of one of the members, Dr. Fred Harris, by death during the year. His place was filled by Dr. T. J. Raney upon appointment by our councilor, Dr. John W. Smith.

We have come to feel it advisable to keep the members of our society informed about the duties, obligation and activities of this committee without, of course, revealing any of the names involved. With this program in mind we have made one speech to the society, explaining in considerable detail the functioning of this committee and its relation to the parent state committee and to the council of the Arkansas State Medical Society. It is felt that a 100 per cent backing of the society is advisable at all times and will be particularly helpful in the event that some difficult case presents itself.

In the course of the year we have had several cases, one bitterly complaining about a small bill. This was handled by requesting the doctor to cancel the bill. We recognize that this is an undesirable precedent, but in view of the fact that the patient seemed to have built up unreasonable resentment, it seemed to be a practical solution. Another complaint was about a bill which the doctor was pleased to adjust and would have done so if the patient had approached him, as they had not. Another case concerned the patient's complaint on many scores following an operative procedure. Our investigation showed that the procedure had been properly done and the complaints, as far as we could tell, were unjustified. But it is our observation in this case that this is a difficult type of situation to handle as the patient was convinced of her position and suspicious of our decision.

We have had several other smaller cases, but none of any serious magnitude.

This committee is still keenly aware of the dangers inherent in this work and aware of the delicacy with which all of its functions have to be administered.

REPORT OF THE TENTH COUNCILOR DISTRICT PROFESSIONAL RELATIONS COMMITTEE

ART B. MARTIN, Chairman

During the year 1953, we received one complaint concerning the fees charged by a member of the Crawford County Medical Society. We asked that the patient and her physician meet together to try to compromise on the charges made. This meeting was unsuccessful and she appealed to the committee for a hearing. After numerous attempts, this hearing was held January 20, 1954, with Dr. Guy Shrigley of Clarksville and Dr. Brooks Teeter, as the other members of the District Professional Relations Committee.

The patient summarized her complaints as follows: She consulted her physician in March, 1951. He examined her and prescribed a course of therapy which involved a series of injections. She asked if she might take the injections at home, administered by her husband or by a friend. Her physician refused to allow this to be done because the injections contained arsenic, and in his opinion, should not be administered without previous examination. She gave as her reason for wanting to take the medicine at home, that she could not afford to take the injections. He supplied the medicine and gave her weekly injections for an office call of $2.00, which she was aware of from the beginning and received monthly statements to this effect. She admitted that she intended to pay her doctor's bill until the disagreement arose between them. It was the opinion of the Committee that the physician had not violated any rules of ethics, fee schedules or principles of good treatment. The patient was satisfied with the type of treatment that she received and the results of this treatment. Her only reason for not paying the bill was because of the disagreement between them concerning her right to take the medicine at home. She obtained from two local physicians in her area, permission to take this medicine. Because of this disagreement and the fact that she had obtained from other physicians' permission to take the medicine, she does not want to pay her bill.

We believe this is a just debt and that she should be required to pay the bill. We informed the complainant of her privilege to appeal to the state committee.

THE ARKANSAS STATE CANCER COMMISSION

W. R. BROOKSHER, Secretary

The Arkansas State Cancer Commission, established at the request of the Arkansas Medical Society and the Arkansas Division, American Cancer Society, completed its eighth year of service to indigent cancer patients in Arkansas June 30, 1953. 1,466 patients were hospitalized and/or received domiciliary care during the last year. The growth in the number of patients receiving service has been steady from 65 patients in 1945-46 with a peak year in 1951-52 of 1,808 patients. 719 patients were admitted to the seven permanent tumor clinics in the state.

An increase of per diem costs of hospitalization and a reduction in available funds has necessitated some restrictions in order that the greatest possible number of patients may receive care. Because of insufficient funds, no hospitalization was approved during one month of the year and it is expected that a similar restriction may be necessary in the current year.

Physicians are reminded that payment of hospitalization costs is available only if request is made in advance of admission of the patient and for 14 days only upon the certification of the attending physician that the patient is unable to meet the costs of medical and hospital care. Funds of the Commission are not made available as a part-pay plan whereby the patient pays part of the fees. Certification of the attending physician means that the patient is totally unable to meet any of the costs of treatment. Acceptance of the patient by the cooperating hospital implies that additional payment is not expected from the patient.

Domiciliary care funds are provided by the Arkansas Division, American Cancer Society and, at the request of physicians, have been disbursed by the Commission.

The gratuitous professional service of nearly 300 physicians in the care of indigent cancer patients in Arkansas is acknowledged and appreciated.

REPORT OF MEDICAL ADVISORY COMMITTEE TO SELECTIVE SERVICE SYSTEM TO THE ARKANSAS MEDICAL SOCIETY

GERALD H. TEASLEY, Chairman

The Medical Advisory Committee to Selective Service System in Arkansas has engaged in only moderate activity during the past year. Due to the change in the Korean situation, calls for physicians were markedly limited; in fact, none have been called to active duty in recent months.

It has not been necessary to call a meeting since January, 1953. Business has been carried on by correspondence with various members of the committee.

It is contemplated that activities will increase during the summer months of 1954, at which time large numbers of physicians will be released from active duty as a result of completing their time in service. No doubt, Arkansas will be called upon to replace their percentage of physicians at that time.

Efforts are being made now to determine the availability of physicians. Those now employed as interns and residents in hospitals throughout the state, who are in the group to be considered for call to active duty, will not be deferred for further training except in the most unusual circumstance. This is a ruling of the National Advisory Committee which had adopted the policy that individuals in training should complete their obligation to the Government at the earliest possible date rather than wait until training is completed or until they have been established in private practice of medicine. The hospitals concerned have been notified of this fact.

BUY U. S. SAVINGS BONDS

SEVENTY-EIGHTH ANNUAL SESSION
ARKANSAS MEDICAL SOCIETY

Fort Smith, April 19, 20, 21

PRELIMINARY PROGRAM

ANNOUNCEMENTS

REGISTRATION—

The registration desk will be located in the lobby of the Hotel Goldman and will be open from 8:00 A.M. to 4:00 P.M., Monday, April 19th and Tuesday, April 20th; and from 8:00 A.M. to 12:00 Noon, Wednesday, April 21st. Special phone service will be maintained at the registration desk, Phone No. 2-4131. Delegates are requested to register as early as possible presenting credentials at the time of registration. Delegates should present credentials in proper form. Members and visitors are required to register, as admission to all sessions will be by badge. Bring your 1954 membership card to facilitate registration. Members of the American Medical Association from other states may register as guests.

MEETINGS OF THE COUNCIL

Sunday Night, April 18, 9:00 P.M.—Parlor A. Goldman Hotel.
Monday, April 19, 12:15 P.M.—First Christian Church.
Tuesday, April 20, 12:15 P.M.—First Christian Church.
Wednesday, April 21, 12:15 P.M.—First Christian Church.

FIFTY-YEAR CLUB BREAKFAST—

A breakfast for members of the Fifty-Year Club of the Arkansas Medical Society will be held in Parlor A, Hotel Goldman, 7:30 A.M., Tuesday morning, April 20th. For reservations, members are requested to contact Dr. J. H. McCurry, Fifty-Year Club Secretary, at the Hotel Goldman prior to 6:00 P.M., Monday, April 19th.

PAST-PRESIDENT'S BREAKFAST—

Parlor A, Hotel Goldman, 7:30 A.M., Wednesday, April 21st.

INCOMING PRESIDENT AND NEW COMMITTEE CHAIRMEN—

Will breakfast at 8:00 A.M., Tuesday, April 20th, Room 116.

UNIVERSITY OF ARKANSAS ALUMNI ASSOCIATION LUNCHEON—

12:15 P.M., Parlor A, Hotel Goldman, Tuesday, April 20th.

ARKANSAS DERMATOLOGICAL ASSOCIATION—

Will meet during the Annual Session. Time and place to be announced.

THE ARKANSAS MEDICAL HONOR SOCIETY—

Banquet, Monday Evening, April 19th.

FIRST GENERAL SESSION

Main Dining Room, Hotel Goldman

9:00 A.M.—Film "The Principles of Fracture Reduction."

9:20 A.M.—Opening Session.

9:45 A.M.—"Intestinal Obstruction"—Daniel J. Moos, Minneapolis.

10:30 A.M.—"General Practice in Rural Mexico"—J. H. Ross, Morelia, Mexico.

11:00 A.M.—"Anaesthesia in General Practice"—Malcolm E. Phelps, El Reno.

11:30 A.M.—C. F. Byrns, Fort Smith Editor, Southwest American.

12:15 P.M.—SPECIAL SECTIONS LUNCHEONS AND PROGRAMS.

PEDIATRIC SECTION—

Room 116, Hotel Goldman, Pearl Waddell, Chairman.

"Advances in Care of Common Pediatric Urological Problems"—Horace V. Munger, Lincoln, Nebraska.

"Factors Predisposing to Hemorrhagic Disease of the Newborn"—Wilbur Lawson, Little Rock.

"Diagnosis of Congenital Heart Disease in Children"—Norm Johnson, Little Rock.

"Upper Respiratory Infections with Associated Chest and Cardiac Complications"—F. E. Shearer, Fort Smith.

"Behavior Problems in Daily Practice"—John Allen Harrel, Little Rock.

SURGICAL SYMPOSIUM—

Parlor A. Hotel Goldman, John D. Olson, Fort Smith, Moderator.

ARKANSAS ACADEMY OF GENERAL PRACTICE—

Marine Room, Hotel Goldman, James M. Kolb, Clarksville, President.

"On Medicine in Mexico"—J. H. Ross, Morelia, Michoacan, Mexico.

"American Academy, Its Motives, Its Future"—Malcolm E. Phelps, El Reno.

Business Session.

Election of Officers.

SECOND GENERAL SESSION

Main Dining Room

3:10 P.M. —"The Management of the Acute Seriously Involved Poliomyelitis Patient"—Robert Jackson, Houston, Texas.

3:35 P.M. —"Hematuria"—H. V. Munger, Lincoln, Nebraska.

4:00 P.M. —HOUSE OF DELEGATES.

MONDAY EVENING—ROTATING RECEPTION—

Sebastian County Medical Society.

TUESDAY, APRIL 20th—THIRD GENERAL SESSION

Main Dining Room

9:00 A.M.—Film "Early Detection of Glaucoma"—Commentator: R. C. Cook, Little Rock.

9:30 A.M.—Edwin F. DeCosta, Asst. Professor of Obstetrics & Gynecology, Northwestern University School of Medicine, Chicago.

10:00 A.M.—"Indications for Pelvic Surgery"—Robt. A. Ross, Chapel Hill, N. C.

10:30 A.M.—"Differential Diagnosis Between Organic and Functional Disease of the Intestine"—E. G. Wakefield, Rochester.

11:00 A.M.—"The Doctor and the Compensation Law"—Mr. Dave Peel, Little Rock.

11:30 A.M.—MEMORIAL SERVICE—Main Dining Room.

12:15 P.M.—SPECIAL SECTIONS LUNCHEONS AND PROGRAMS.

EYE, EAR, NOSE, AND THROAT SECTION—

Will meet all day. Beginning at 10:00 A.M., and including Luncheon at St. Edwards Hospital.

"Problems in Industrial Ophthalmology"—G. H. Landers, El Dorado.

"Management of Vasomotor Rhinitis"—H. A. Bailey, Jr., Little Rock.

"Physiological Surgery of the Nasal Septum and Associated Structures"—Ralph Riggs, Shreveport, Louisiana.

"Plastics Around the Eye"—O. S. Lee, Hot Springs.

"Some Problems in Muscle Imbalance"—Wm. J. G. Davis, Washington, D. C.

ARKANSAS OBSTETRICAL AND GYNECOLOGICAL SOCIETY—

Sparks Hospital, Eugene T. Ellison, Texarkana, President.

12:15 P.M. —Luncheon, Sparks Hospital—J. F. Kelsey, Fort Smith, Moderator.

2:00 P.M. —"Intra-Epithelial Carcinoma of Cervix"—Robt. Ross, Professor, Obstetrics & Gynecology, University of North Carolina.

2:30 P.M. —"Induction of Labor"—Charles Wickard and Melvin McCaskill, Little Rock.

3:00 P.M. —"Cortisone in Pregnancy"—Edwin F. DeCosta, Asst. Professor of Obstetrics & Gynecology, Northwestern University School of Medicine, Chicago.

3:30 P.M. —"Late Puerperal Bleeding"—Eugene Ellison, Texarkana.

4:00 P.M. —Business Meeting—Arkansas Obstetrics and Gynecology Society.

SECTION ON INTERNAL MEDICINE—

Marine Room, Hotel Goldman, Louie A. Whittaker, Fort Smith, Moderator.

FOURTH GENERAL SESSION

Main Dining Room, Hotel Goldman

3:30 P.M. —"Anti-Coagulant Therapy, A Review"—James F. Lewis, Columbus, Mississippi.

4:00 P.M. —"Treatment of Perforated Ulcers by Gastric Resection"—Marlin B. Hoge, Fort Smith.

4:30 P.M. —"What is the Best Way to Treat Ringworm of the Scalp?"—Calvin J. Dillaha, Little Rock.

TUESDAY EVENING—

7:00 P.M. —Main Dining Room, Hotel Goldman, Buffet Banquet Entertainment by Sebastian County Woman's Auxiliary.

FIFTH GENERAL SESSION

Main Dining Room, Hotel Goldman

9:00 A.M.—Film "Oral Cancer."

9:30 A.M.—"The Changing Face of Medicine in a Morgue During the Last Quarter of a Century"—W. R. Mathews, Shreveport, Louisiana.

10:00 A.M.—"The Complications of Cholecystectomy; Prevention and Treatment"—Thomas C. Douglass, Chicago.

10:30 A.M.—"What is Being Accomplished by Adrenalectomy"—James W. Headstream and James Wortham, Little Rock.

11:00 A.M.—"Treatment of the Unexpanded Pneumothorax"—Harley C. Darnall, Fort Smith.

11:30 A.M.—"Current Problems in Therapy of Infections"—Lawrence B. Hobson, N. Y.

1:30 P.M. —FINAL SESSION—HOUSE OF DELEGATES—Main Dining Room.

FINAL GENERAL SESSION

(Following Adjournment of the House of Delegates)

COUNCIL MEETING—

The new Council will meet for a brief reorganization meeting following adjournment.

PROGRAM

WOMAN'S AUXILIARY

SUNDAY, APRIL 18, 1954

Ward Hotel

3:00 - 6:00 P.M.—Registration, Mezzanine, Ward Hotel.

MONDAY, APRIL 19, 1954

9:00 A.M.—Registration, Mezzanine, Ward Hotel.

9:15 A.M.—Pre-Convention Board Meeting.

10:00 A.M.—Opening General Session—Mrs. A. S. Koenig, President, Sebastian County Auxiliary, Presiding.

Invocation—Mrs. C. E. Kitchens, Chaplain.

Address of Welcome—Mrs. John D. Olson, Vice-President, Sebastian County Auxiliary.

Introduction of State Presidents—Mrs. A. A. Little, State President, Woman's Auxiliary to the Arkansas Medical Society.

Response to Address of Welcome—Mrs. J. P. Price, Monticello.

Introduction of Guests—Mrs. George D. Feldner, New Orleans, Louisiana, President, Woman's Auxiliary to the Southern Medical Association.

Mrs. Mason Lawson, Treasurer, Woman's Auxiliary to the American Medical Association.

Report of Councilors to the Southern Medical Association

Mrs. Hoyt Choate, Little Rock, President-Elect, Woman's Auxiliary to Arkansas Medical Society.

Report of County Presidents (Restrict report to 2 minutes).

Recommendations from Board of Directors—Read by the Secretary.

12:30 P.M. —Luncheon, Gold Room, Ward Hotel.

Mrs. A. A. Little, State President, presiding.

Address—Mrs. George D. Feldner, President, Woman's Auxiliary to the Southern Medical Association.

3:00 P.M. —Tea—Style Show—Camp Chaffee Officers' Open Mess—Hostesses, Wives of Medical Staff of Camp Chaffee.

TUESDAY, APRIL 20, 1954

8:00 A.M.—Past Presidents' Breakfast, Ward Hotel—Chairman, Mrs. W. R. Brooksher, Fort Smith.

9:00 A.M.—Second General Session, Silver Room, Ward Hotel.

Presiding—Mrs. A. A. Little, President, Texarkana.

Invocation—Mrs. C. E. Kitchens, Chaplain, DeQueen.

Speaker—R. C. Dickinson, President, Arkansas Medical Society, Horatio.

Unfinished Business.

Election of Officers.

Installation of Officers—Mrs. Mason Lawson, Little Rock.

1:00 P.M. —Luncheon—Hardscrabble Country Club—

Presiding—Mrs. A. S. Koenig, President, Sebastian County Auxiliary.

Address—Mrs. Mason Lawson, Treasurer, Woman's Auxiliary to the American Medical Association.

7:00 P.M. —Banquet—Goldman Hotel.

WEDNESDAY, APRIL 21, 1954

10:00 A.M.—Post Convention Board Meeting and School of Instruction.

Committee Chairmen, District Council Women, County Presidents and Councilors are urged to attend.

12:00 Noon—Dutch Treat Luncheon—Everyone Invited, Ward Hotel.

Editorial

OSTEOPATHY AND THE MEDICAL PROFESSION

The American Medical Association House of Delegates adopted the following recommendations at the New York meeting last June:

"Because of the length of the Committee report and the controversial nature of the subject, the Board of Trustees of the American Medical Association feels that the House of Delegates should have adequate time for its study and THAT THE STATE ASSOCIATIONS SHOULD HAVE OPPORTUNITY TO EXPRESS THEIR OPINIONS.

"Therefore, it is recommended that the Committee for the Study of Relations between Osteopathy and Medicine be continued, but that action on the report be deferred until the June, 1954, session in San Francisco. It is suggested that at that time the House of Delegates of the American Medical Association be prepared to answer the following questions:

"1. Should modern osteopathy be classified as 'cultist' healing?

"2. Since the objectives of the American Medical Association include the improvement in undergraduate and postgraduate education, should doctors of medicine teach in osteopathic schools?

"3. Should the relationship of doctors of medicine to doctors of osteopathy be a matter for determination by the several state associations?"

The House of Delegates of the Arkansas Medical Society will be asked to express its opinion upon these three questions so that the delegate from this Society to the House of Delegates of the American Medical Association will, in turn, express your opinion in San Francisco next June.

Each county medical society should consider these three questions, and give its delegate or delegates to the Arkansas Medical Society its opinion, so that these delegates will represent their county society when the matter comes before the House for consideration April 19th. For detailed information relative to the report of this special committee to the American Medical Association, and for the discussion which arose at the New York meeting, may we refer you to the Journal of the American Medical Association June 20, 1953, Page 713.

THE ANNUAL SESSION

This issue contains the program for the coming annual session of the Society to be held at The Goldman Hotel, Fort Smith, April 19-21st. The scientific program is well arranged and should prove of interest to all of our members. The host county society is preparing for entertainment which will make the occasion enjoyable from the social side. The advisability of making hotel reservations is suggested to all who plan to attend.

PUBLIC RELATIONS

Physician
Patient
Personal

KEEPING ABREAST

The best relationship in medical practice is that between the patient and his personal physician. The family physician, the base of medical practice as we know it, should practice scientifically, with sympathetic understanding and with economic fairness. Much has been said in this and other columns about handling of patients and the business side of medicine and the activities of organized medicine.

The sole purpose of medical practice is the relief or prevention of suffering, disease and disability. Medicine is now a clearly defined science based on and supported by practically every branch of chemical and physical science.

It behooves each of us engaged in the practice of medicine to do our utmost to keep abreast of the scientific progress of our field, whether we are general practitioners or specialists. We must be at all times prepared to render our patients the most effective and efficient scientific care possible. In order to do this it is mandatory that we spend considerable time in reading and in attendance at scientific meetings. No one can otherwise keep up with the swift advances being made in diagnosis and treatment. In practice we must not be experimenters. The old adage still holds that the family physician must not be "the first by which the new is tried, nor yet the last to lay the old aside"; we must be on our toes to learn and apply whatever methods are found to be tried and true.

The most important factor in our practice is to be able to do a good job. If we can "deliver the goods" our public relations will be all right.

C. L. Hyatt.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

DIABETES AND TUBERCULOSIS

By ELMER S. GAIS, M.D., New York State Journal of Medicine, August 15, 1953

Tuberculosis occurs frequently as a complication of pre-existing diabetes mellitus. The fact that this combination of diseases is lethal unless recognized early and treated vigorously is of utmost importance. The incidence of tuberculosis is higher in the diabetic than in the general population. Recent evidence is presented by the Philadelphia Survey in which 8.4 per cent of the 3,106 diabetics studied were tuberculous, whereas 4.3 per cent of a group of 70,767 industrial workers were found to harbor tuberculosis.

From this survey other important conclusions were drawn: (1) tuberculosis was **active** in 2.6 per cent of the diabetics and was three times as prevalent in those under 40 years of age as in those 40 or over; (2) the prevalence of active tuberculosis increased markedly with severity of the diabetes and was greater in underweight persons than in overweight; (3) in the younger age group the prevalence of active tuberculosis was much greater in those having had diabetes 10 years or more; (4) tuberculosis was much more likely to be active in diabetics than in nondiabetics.

No conclusion was reached as to the effect of degree of control of diabetes on the incidence of tuberculosis. The juvenile diabetic at present survives into the decades when tuberculosis becomes more prevalent; thus the opportunity for exposure and increased incidence of tuberculosis becomes a function of time itself. If underweight is evidence of undernutrition and inadequate control, then the increased incidence in this group may reflect the hazard of poor diabetic control.

A statistical case for the beneficial effect of improved diabetic care can be made by a comparison of the declining mortality of the diabetic from tuberculosis in the various eras of diabetic therapy, which seems to be related to the longer lasting insulin effect with better control. However, the effect of improved treatment of tuberculosis must be evaluated, particularly since the overall mortality from tuberculosis is declining more rapidly than that from diabetes.

From a presently incomplete study of several hundreds of tuberculous diabetic patients treated in Montefiore Hospital, (N. Y.), under uniform supervision over the past 15 years, it appears that more thorough control of the diabetes yields a definitely higher survival rate, **almost equaling the survival rate of the nondiabetic tuberculous patient in the same institution receiving the same therapy for his tuberculosis.** This conclusion is tentative and may have to be modified somewhat in the light of stricter analysis.

What is the reason for the increased susceptibility of the diabetic to infections, in this instance, tuberculosis? Many theories have been advanced, among the latest of which is the effect of adrenal steroids on the immune reaction in tuberculosis. Overproduction of such contrainsulin steroid or pituitary factors, particularly in the older age group of diabetics, may well be a determining factor in the causation of diabetes and of altered immunity. This might also explain the high incidence of true insulin resistant diabetes in tuberculosis. But in the younger age group of diabetics, deficiency of insulin itself seems to be the prime cause of diabetes. Yet this age group has a high rate of active tuberculosis. Further studies may resolve this dilemma.

The course of tuberculosis in the diabetic is usually stated to be more active, more progressive and leading to more frequent generalized spread. Many features of the pathology of the disease warrant this conclusion. Fewer, less dense pleural adhesions, rendering pneumothorax easier, less fibrosis, more caseation and a low incidence of amyloid disease, attest to the more rapid progress of the disease. There seems to be no difference in native immunity to tuberculosis in diabetics. Healed primary lesions are usual. But something occurs after development of diabetes which lowers the normal resistance to tuberculosis infection, and the disease may progress rapidly.

There is no essential difference in the localization of the tuberculous infection in the diabetic and the nondiabetic. The onset is no more insidious, but it is very often missed. The old rule that "in every diabetic who is not doing well without apparent cause, suspect tuberculosis" still holds. The minimum of a semi-yearly roentgenogram of the chest is a small price to pay for early diagnosis! It is well to remember that tuberculosis may become active very frequently in the older age groups as well as in the younger.

At Montefiore Hospital there is no limitation placed on the treatment of the tuberculous patient because he has diabetes. Under proper management there is no reason to fear ketosis. Premature vascular disease in a diabetic may preclude extreme surgical procedures. But, by and large, these patients can be treated for tuberculosis almost as if the diabetes did not exist. Chemotherapy is used according to the newer concepts. The possible increase in insulin requirement resulting from isoniazid therapy is offset by the decrease from the improved febrile state, so that diabetic balance is maintained. The important principle is to treat the disease vigorously. All diabetic subjects who develop tuberculosis should be hospitalized immediately in an institution equipped to treat both diseases.

The diabetes should be treated to maintain adequate nutrition in a chronic, debilitating, febrile disease. The diabetes is rendered more severe as a rule, but a satisfactory degree of stabilization occurs even with the fluctuating course of the infection. The diet should be attractive and varied. Over- or underweight should be avoided. Most patients on enforced bed rest tend to become overweight. The vascular, neuropathic, and other complications of diabetes when encountered are treated in the usual manner.

Insulin is necessary in at least 95 per cent of the patients. The longer-lasting insulins are quite satisfactory but frequently must be supplemented. With the fluctuations in the infectious process minimal glycosuria and near normoglycemia are often difficult to accomplish, but with constant vigilance can nearly be attained. Fractional urines are used as the base for regulation, and even a slight ketosis is treated vigorously. We have had no deaths from diabetic coma.

A few practical points may be mentioned. Readjust the insulin dosage slowly. Fluctuations in the infection, changes in appetite, and the tendency for long, institutionalized patients to relax their regimes are factors in control. Above all, avoid hypoglycemia with its attendant danger of unconsciousness and aspiration of infected material with bronchogenic spread. A slight glycosuria will avoid this hazard. Whenever a persistent aglycosuria occurs, it is wise to reduce the insulin dosage promptly but gradually.

With vigorous therapy, a hopeless outlook is no longer necessary. Preliminary uncorrected analysis of the first 100 of the cases in Montefiore Hospital from 1936 to 1941 shows a five-year mortality rate of 24.2 per cent against a rate of 22.9 per cent of nondiabetic tuberculous patients. This is also evidenced by the increasing number of discharges of arrested cases, who are an excellent group of well-controlled diabetics.

The watchwords are early detection and prompt, vigorous treatment of both diseases.

(This abstract was prepared from one of the articles entitled "Current Concepts in Diabetes Mellitus" published under the auspices of the Committee on Professional Education of the Clinical Society of the New York Diabetes Association.)

OBITUARY

W. B. REASONS, age 78, Hermitage, died January 20th. Born at Rosston, he graduated from the Georgia Eclectic Medical and Surgical School in 1909, and had practiced in Bradley county since 1903. In later years he became engaged in extensive farming and cattle raising projects. He was a past-president of the Bradley County Medical Society, and of the Fifty-Year Club and was instrumental in the establishment of the Bradley County Memorial Hospital at Warren. Surviving are his wife, two sons and a brother.

MARTIN C. HAWKINS, SR., age 84, Parkdale, died November 28th, after an illness of several months. Born at Hamburg, he attended Hamburg schools, Wallace's Training School, Nashville, and Union University, Jackson, Tennessee, graduating in medicine from the University of Louisville in 1893. He was a life member of the Arkansas Medical Society, and a member of the Fifty-Year Club. Surviving are his wife, three sons, one of whom, Dr. M. C. Hawkins, Jr., is practicing at Searcy, and two daughters.

PERSONALS AND NEWS ITEMS

W. K. Riley, Pine Bluff, attended the annual meeting of the American Academy of Allergy, Houston, February 1-3rd.

A. A. Blair has been re-elected treasurer of the Superior Building and Loan Association at Fort Smith.

Hayden C. Nicholson, Little Rock, recently addressed the Men's Club of the North Little Rock Presbyterian church on "Christianity and Americanism."

Friedman Sisco has been re-elected a director of the First National Bank at Springdale.

A. F. Hoge has been re-elected a director of the City National Bank at Fort Smith.

Wayne G. Pullen, formerly of Fort Smith, has joined the staff of the DeQueen Clinic.

Charles G. Leverett, McGehee, announces the association with him in practice of Byron T. Johnson.

Eva F. Dodge, Little Rock, addressed the Business and Women's Professional Club of Beebe January 19th on "Begin Now to Enjoy Tomorrow."

A special article on the Daniel-Harrell Clinic, Texarkana, appears in the January-February issue of Private Clinics and Hospitals of Texas.

John W. Dorman, Ralph Power and Stanley Applegate have moved into the new Springdale Clinic building.

The Arkansas State Board of Health has elected D. W. Goldstein, Vice-chairman, and J. P. Herron, Secretary.

Paul L. Mahoney, Chief of Otolaryngology, Veterans Hospital, Little Rock, conducted a seminar for general practitioners February 11th with the assistance of H. A. Bailey, Jr., and Norman Fine.

The American Medical Education Foundation announces the receipt of a contribution in January from the Woman's Auxiliary to the Sevier County Medical Society.

V. B. Smith has located at Marked Tree.

Henry Rogers and David Hefner have formed a partnership at Mena.

H. D. Luck has located at Arkadelphia.

PROCEEDINGS OF SOCIETIES

The postgraduate course in obstetrics and gynecology held at the University of Arkansas School of Medicine February 25th and 26th was addressed by James Atkinson, James Barker, D. E. Barlow, Eva F. Dodge, A. T. Gillespie, E. Clark Gillespie, Chas. R. Henry, M. R. McCaskill, Leon Quattlebaum, C. G. Sutherland, Deane Wallace and C. P. Wickard. Guest speakers were: R. L. Newman, Kansas City, Kansas; Claiborne Williams, Nashville, and C. W. Shafer, Little Rock.

Monroe County Medical Society has elected the following officers: President, Ben Pupsta; Vice-president, Robert Cook; Secretary-treasurer, Jere Long; Delegate, M. L. Dalton, and Alternate, George Cazan.

The Bowie-Miller Counties Medical Society was addressed January 14th by Ambrose Storck, New Orleans.

The Fifth Councilor District Medical Society has elected the following officers: President, J. B. Wharton, Sr.; Vice-president, Tom Meek, Camden, and Secretary, Paul Sizemore.

Pope-Yell County Medical Society has elected the following officers: President, Max Mobley; Vice-president, Walter Lane; Secretary-treasurer, W. O. Young; Delegates, J. Arnold Henry and Lewis Webb.

Baxter County Medical Society has elected the following officers: President, J. A. Van Beber; Vice-president, James Dunbar, and Secretary-treasurer, E. W. Bentzien.

Lawrence County Medical Society has elected the following officers: President, Ralph Joseph; Vice-president, J. B. Elders; Secretary-treasurer, E. J. C. D. Tibbels, and Delegate, E. J. Cruse.

Drs. John L. Dedman and L. V. Ozment entertained the Ouachita County Medical Society at dinner February 4, 1954, at the Duck Inn in Camden.

The following talks were given: "Treatment of Acute Dermatitis," Calvin Dillaha, Little Rock, and "Management of Massive Gastric Hemorrhage," Jerome Levy, Little Rock.

The following resolution was adopted unanimously:

WHEREAS, Legislation has been introduced into the Congress providing for the extension of compulsory coverage of the Social Security Act to self-employed persons, including physicians; and

WHEREAS, Physicians desire the continued right to establish retirement benefits for themselves on a voluntary basis rather than be compelled to participate in a tax-supported Government program which they do not want; therefore be it

RESOLVED, That the Ouachita County Medical Society in session February 4, 1954, express its opposition to this legislation to Congressman Oren Harris, Congressman Wilbur Mills, Senators John L. McClelland and J. W. Fulbright.

R. B. Robins.

All members who have practiced medicine continuously for 50 years or more are eligible to join the "50-Year Club" of the Arkansas Medical Society and to receive an appropriate gold lapel button. Eligible members who do not now belong should contact Dr. J. H. McCurry, Secretary of the 50-Year Club, Cash, Arkansas, giving him pertinent information.

The Independence County Medical Society met with the Auxiliary for dinner February 1, 1954. The honor guest was the Mrs. A. A. Little, the State President of the Women's Auxiliary from Texarkana. After the meeting, the Auxiliary had their monthly meeting at the Marvin Hotel while the men had the scientific meeting at the Johnston & Ketz Clinic.

The program consisted of some slides on tropical diseases, both in Ethiopia and Java, shown by Independence County Medical Society President, Meryl Grasse of Calico Rock. A discussion of Veterans Administration Medical Care was made by J. J. Monfort, State Medical Society Secretary.

The Sebastian County Medical Society was addressed January 12th by H. C. Darnall, Fort Smith, on "Bronchiectasis: Its Diagnosis and Treatment."

The Independence County Medical Society was addressed January 11th by Karr Shannon, "Orthopedic Principles," and R. L. Calaway, "Cotron Therapy."

Columbia County Medical Society has elected J. H. Wilson, President; E. G. Burt, Vice-president, and C. L. Weber, Secretary-treasurer.

The Southeast Arkansas Medical Society was addressed January 25th by James W. Headstream and C. G. Sutherland, Little Rock.

Phillips County Medical Society has elected the following officers: President, George Gibbons; Vice-president, Bernard Capes; Secretary-treasurer, Alfred Berger, and Delegates, L. J. Bell and William Connolly.

A panel discussion on "Your Prescription for Mental Health" was presented to the Jefferson County Medical Society January 22nd.

The Pope-Yell County Medical Society met February 11th for a discussion on "Gas Therapy."

W. O. Young, Secretary.

Book Review

An Atlas of Pelvic Operations: By Langdon Parsons, M.D., Professor of Gynecology, Boston University School of Medicine; and Howard Ulfelder, M.D., Assistant Clinical Professor of Gynaecology, Harvard Medical School. Illustrated by Mildred B. Codding, A.B., M.A. 231 pages. Philadelphia and London: W. B. Saunders Company, 1953. Price $18.00.

This is a new, meticulously illustrated atlas of pelvic surgery which does not include consideration of diagnosis or clinical indications for surgical procedures. The authors attempt to illustrate each step of the surgical procedures in detail and to demonstrate a reason for each step. The operative techniques are designed to keep the operator out of trouble as well as to point out the moment in the operation that the trouble is most likely to occur.

Detailed considerations are given to the preliminaries for all abdominal surgery, including position, opening the abdomen and exploration of the upper abdomen. Problems of pre and post-operative management are given a minimum of space.

Only one technique for each operative procedure is given and this represents the technique accepted as standard in the authors' institutions. The authors have attempted to describe only the surgical procedures now in common use.

A section on radical surgery for malignant disease of the pelvic organs is included. In order to prepare the operator for unsuspected pathology at time of laparotomy, many general surgical procedures outside the field usually considered gynecological surgery are described.

The text is a well described and illustrated atlas which can be employed as a quick review for the experienced surgeon and a handbook for the surgeon seeking experience.

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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- SPECIAL FEATURES

Committee on Cancer Control.... 197

Management of Cardiac Arrest.. 198

Moderate Trend in Dermatology 201

- FEATURES

Editorial 206

Public Relations 207

Tuberculosis Abstracts 208

Obituary 209

Personals and News Items 210

Proceedings of Societies 212

Woman's Auxiliary 212

Book Review 212

The JOURNAL
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Vol. L APRIL, 1954 No. 11

COMMITTEE ON CANCER CONTROL

C. A. ARCHER, Chairman
Conway

THE SILENT PHASE IN LUNG CANCER

Cancer of the lung has a silent phase in which it may be detected by the chest roentgenogram. The air-containing lung provides a contrast medium which permits the demonstration of changes in density which may be produced not only by the actual tumor itself but by the associated atelectasis incident to the bronchial obstruction.

It is becoming more apparent that the tuberculosis case-finding program with the mobile X-ray units may be expected to discover incidental cases of lung cancer. Some authorities are advocating selective screening by mobile unit films on an annual basis.

The detection of abnormal lung field densities is but the first step. Prompt and adequate investigation is next in order and may include roentgenograms in additional projections, cytological examination of the sputum, bronchoscopy and exploratory thoracotomy. If an abnormal roentgenologic density is not to be explained on any other basis, surgical exploration is warranted on the suspicion of malignancy.

MANAGEMENT OF CARDIAC ARREST

BILL D. STEWART, M.D., Little Rock

The resuscitation of the human heart has been the subject of many contributions to the scientific literature in the past years. One of the earliest recorded attempts at cardiac resuscitation was that of Tuffier and Hallion in June of 1898.[1] Following this many others have reported varying degrees of success at cardiac resuscitation. It is not the intent, however, of this writing to review the literature reporting attempts at cardiac resuscitation. Nor, is this article for the purpose of adding anything new to the long list of recently accumulated experimental data which has helped to fashion our present ideas of etiology, prevention, and treatment of cardiac arrest. Instead, the purpose of this article is to present some of the conclusions which one might reach after studying the experimental data and the clinical case reports currently appearing in the literature, and thus on that basis present an approach to the prevention and treatment of cardiac arrest.

Sudden cessation of the heart beat treated by cardiac massage reduced to its simplest terms is analgous to sudden cessation of respiration treated by artificial respiration. Likewise, if the cause of the sudden cessation of heart beat is temporary or is remedial and treatment is instituted promptly the outlook is just as favorable as it is in cases of respiratory arrest meeting the same criteria and treated adequately with artificial respiration.

The catastrophy of cardiac arrest is fortunately very rare, and also fortunately occurs most frequently in the operating room (87% of 1,200 cases),[2] thus lending itself admirably to prompt effective treatment. However, with this fact in his favor the physician will only be successful in his management of this condition if his **treatment is prompt and correct, and includes a minimum of confusion and indecision.** Therefore, it behooves every doctor to have a preconceived plan for the recognition and decisive treatment of this catastrophy. Even more important to the doctor, and to his patients, is that he know something of the factors thought to predispose to cardiac arrest so that he can best prevent its occurrence. It is with these purposes in mind that the following is presented.

Anoxia (or hypoxia) has been accused as a major contributing factor in the production of cardiac arrest. This has appeared so frequently in medical writings and has been stated so often by physicians that it is now a "time honored" conclusion. However, the experimental data and some clinical observations would suggest quite strongly that hypoxia is not at all the entire story. It is probably not even the most important factor more or less easily controlled by the anesthetist. Certainly adequate oxygenation of the anesthetized patient is of utmost importance for many reasons. Yet, it is becoming increasingly apparent that adequate removal of the patient's expired carbon dioxide is of equal importance. In fact, accumulation of carbon dioxide (hypercapnia) seems to be of major significance in contributing to cardiac arrest.

Some of the experimental studies concerning cardiac arrest and ventricular fibrillation might be mentioned briefly. The major role played by hypercapnia in cardiac arrest has been demonstrated experimentally by Sloan,[3] Young, et al.,[4] and by the author, et al.[5] In part, these experimental studies revealed similar findings. It was demonstrated that artificially induced hypercapnia very strongly enhanced temporary cardiac arrest produced by vagal stimulation. On the other hand artificially induced anoxia had no appreciable effect on the experimental vagal cardiac arrest. However, hypercapnia is not so clearly implicated in the production of the more rare cardiac catastrophy ventricular fibrillation. The author, et al.,[5] were able to show experimentally that hypercapnia exerted no specific influence upon cyclopropane-epinepherine produced arrhythmias and/or ventricular fibrillation. However, the presence of acute anoxia was found to exert a profound influence in the production of these arrhythmias. Also it was found that chronic anoxia (produced by constructing intra-cardiac right to left shunts) caused ventricular fibrillation in 33% of dogs undergoing vagal stimulation (a condition which did not occur in any of the non-hypoxic dogs tested).

On the clinical side of the picture it has been noted that cardiac arrest occurs much more frequently than does ventricular fibrillation. Stephenson, et al.,[2] found in 1,200 cases of cardiac arrest that ventricular fibrillation occurred only 133 times. Reid, et al.,[6 7 8] have emphasized the importance of the vago-vagal reflex as a mechanism in the production of cardiac arrest. Beecher [8] has pointed out the dangers of hypercapnia occurring during general anesthesia. Stephenson, et al.,[2] were able to obtain reliable data indicating a precipitating factor prior to cardiac arrest in 624 cases. Of these a possible vago-vagal reflex action was likely in 156 instances. These in-

cluded such factors as: insertion of endotracheal tube, extubation, direct contact or actual cutting of the vagus nerves, dissection about the pulmonary hilus, downward traction on the stomach, traction on the mesentery, changing the position of the patient, passage of a stomach tube, etc. In these cases the offending procedure was almost immediately followed by the sudden cessation of the normally beating heart. In the majority of these cases arrest occurred within a matter of seconds and frequently was not associated with clinical signs of anoxia.

Remembering these experimental and clinical data it would appear that some steps can be taken in the prophylaxis of cardiac arrest. **First:** Since at least part of the cases can be shown probably to result from a vago-vagal reflex an adequate dose of atropine should be a part of the preanesthetic medication to decrease vagal activity. **Second:** The procedures which are thought to initiate the vago-vagal reflex should be kept in mind and performed only very cautiously. That is, if endotracheal intubation is done the trachea and larynx should be anesthetized with a topical anesthetic before the tube is introduced (regardless of whether the patient is under general anesthesia or not). The practice of infiltration of the pulmonary hilum with procaine before hilar dissection is undertaken is currently being done less and less by thoracic surgeons. However, it would appear to be a worthwhile procedure, especially when the heart (as visualized during the thoracotomy) is seen to be slowing markedly or is having irregular beats. **Third:** It has been observed many times that cardiac arrest occurs more frequently at the beginning or end of anesthesia than at times of adequate surgical anesthesia. Therefore, it would appear unwise to manipulate the patient in anyway during induction of anesthesia; or to start the operation before a plane of surgical anesthesia has been reached. Also the practice of bronchoscopy at completion of operation to remove excessive endobronchial secretions should not be undertaken lightly. When this procedure seems necessary it should be done, if at all possible, while the patient is still in surgical anesthesia, and should be as atraumatic as possible. Preferably, if possible, these bronchoscopies should be preceded by topical anesthesia of the larynx and trachea. **Fourth:** Because of the impressive data relating hypercapnia to cardiac arrest, adequate removal of expired carbon dioxide is mandatory. It must be remembered that much smaller respiratory excursions are required to adequately oxygenate a patient than to remove his expired carbon dioxide. The marked decrease in respiratory exchange that results from general anesthesia (reduced to one-fourth to one-half of pre-anesthetic exchange as measured by a spirometer[10]) is usually adequate to maintain normal arterial oxygen levels —but frequently is inadequate to remove expired carbon dioxide. Therefore, the general appearance of a patient (how "pink" he is, etc.) is no index of his respiratory balance. **A crucial respiratory acidosis may develop in an anesthetized patient who appears "pink" and has a strong pulse and a good blood pressure.** This can be avoided very simply by maintenance of a good airway plus assurance of a good volume of respiratory exchange by assisted respiration (intermittent pressure on the rebreather bag by the anesthetist). In this connection it might also be pointed out that the use of carbon dioxide as a respiratory stimulant for the anesthetized patient cannot be condemned too strongly.

Once the physician has taken all the precautions possible to avoid the occurrence of cardiac arrest he must also be ready to treat it if it should occur. As has already been stated intelligent treatment of cardiac arrest depends upon a preconceived plan of attack organized in the physician's mind so that minimal time is lost and a minimum of confusion results when the catastrophe occurs.

The plan that we use can be divided into: (1) what the surgeon does, (2) what the anesthetist does, and (3) what the nurse does.

Both the anesthetist and surgeon have a part in the diagnosis of cardiac arrest. The anesthetist's part in diagnosis consists of notifying the operating team immediately when he cannot palpate a pulse or obtain a blood pressure. The surgeon then examines the operative field to palpate a large vessel (in the abdomen he feels for the abdominal aorta, in the neck he palpates the carotid artery, and during an inguinal herniorrhaphy the external iliac artery, etc.). If he cannot detect a pulse in a large vessel the diagnosis is sufficiently well made to indicate opening the chest to take a look at the heart and massage it if it is in fact in standstill. This, of course, does not apply if blood loss has been excessive and has not been replaced and the pulse has slowly become weaker and weaker until it cannot be palpated. This plan of action applies to sudden cessation of the heart beat (indicating cardiac arrest)—not to shock.

Once the diagnosis of cardiac arrest has been made a number of things should happen as rapidly as possible. The anesthetist checks to be sure the patient has an adequate airway (rapidly doing

endotracheal intubation if necessary) and then begins giving positive pressure artificial respiration with 100 per cent oxygen. At this point he should also be sure that his carbon dioxide absorption chamber is in the circuit and that it contains fresh soda lime.

At the same time the anesthetist has been busy as described in the preceding paragraph the surgeon has removed enough of the surgical drapes to expose the chest and made an incision into the left chest anteriorly in the third or fourth interspace extending from just lateral to the sternal border to the anterior axillary line or the mid-axillary line. No time is taken to prepare the skin of the chest, at this time strict aseptic technic is forgotten. It should be possible to enter the chest under these conditions in 30 seconds to a minute and a half. The only instrument necessary for this is a scalpel—the ribs can be spread enough to admit a hand without any difficulty. Later while cardiac massage is being done a rib spreading retractor can be inserted (thus giving the nurse an opportunity to obtain one without delaying starting of treatment). Once the surgeon is in the chest he gets a view of the heart and thus makes a definitive diagnosis and immediately starts treatment. Up until this point the surgeon only knows that he is treating sudden cessation of an effective heart beat—however, when the chest has been opened and the heart is visualized he is able to make a differential diagnosis between cardiac arrest and ventricular fibrillation and institute treatment accordingly. For effective cardiac massage the pericardium should be opened. An incision can be made in the pericardium just anterior to the phrenic nerve. Once the incision is made in the pericardium the operator's hand is passed into the pericardial opening palm up and passed behind the ventricles. The ventricles are then compressed firmly and then released quickly. This is done as rapidly as is possible—and should be at least 80 to 100 times per minute. Some men prefer not to open the pericardium—however, it has been shown experimentally that massage is more effective and causes a higher blood pressure in the carotid arteries if the pericardium is opened. It also has been demonstrated that transdiaphragmatic massage through an abdominal incision is quite ineffective in maintaining blood pressure. Another good reason for opening the pericardium is because only by visualizing the heart can one be sure that ventricular fibrillation is not present. Also there is always the possibility of injury to a coronary artery if intracardiac injection is done through the intact pericardium. With the pericardium open the vessels are easily visualized and one can place the needle wound to avoid injury.

After massage has been instituted the anesthetist should be able to palpate a radial pulse with each compression of the ventricles; and also should be able to obtain a blood pressure of at least 80 mm. of Hg. If he cannot obtain a pulse or blood pressure massage is not effective.

Massage should be the initial treatment in either cardiac arrest or ventricular fibrillation. Thus blood is pumped out of the right ventricle through the lungs (which the anesthetist is ventilating with artificial respiration with 100 per cent oxygen) and back to the left side of the heart to be forced into the coronary arteries and the carotid arteries. Once circulation has been re-established and oxygenated blood delivered to the myocardium and the brain then thought can be given to defibrillation of the ventricles if ventricular fibrillation is present.

The currently accepted method of defibrillation of the heart is by the use of the electric defibrillator. These units, of course, are not available in most small hospitals at the present time. Fortunately ventricular fibrillation is extremely rare as compared to cardiac arrest so the fact that the doctor does not have a defibrillator at his command does not excuse him from doing a thoracotomy to treat sudden cessation of the cardiac beat. For those interested in acquiring a defibrillator several articles have been published detailing the construction of one very inexpensively. Occasionally ventricular fibrillation has been seen to revert to a normal rhythm by massage alone—however, this is not a common occurrence.

If upon opening the chest the heart was found in standstill massage is continued until a normal beat is resumed.

Much has been said about intracardiac injection of various drugs in the treatment of cardiac arrest. There is a place for such injections—but it is largely overdone. No injections should be made until after cardiac massage has proceeded to the point that the myocardium is well oxygenated and appears pink (not blue as it will usually be found upon entering the chest). If injections are done while the myocardium is anoxic a standstill will very occasionally be converted into ventricular fibrillation. Drugs commonly used are adrenalin and calcium chloride. We prefer calcium chloride, which if injected at the proper time will frequently be seen to increase the tone of the cardiac muscle and "pick-

up" the feeble beat. The usual dose is two to five cubic centimeters of a 10 per cent solution. We are not impressed by the ability of procaine to prevent fibrillation—however, 5 per cent procaine to prevent fibrillation is recommended by some during cardiac massage, to be injected into the ventricle. Potassium chloride has an effect on the heart opposite from calcium. Thus, it can be used in an attempt to stop ventricular fibrillation if a defibrillator is not available. Two to five cubic centimeters of a 10 per cent solution are injected and massage done until the fibrillation stops—then it is treated as a cardiac arrest.

After an adequate circulation has been reestablished the pericardium is approximated loosely and the chest is closed in layers, and an intercostal catheter is left in place for underwater seal drainage. Artificial respiration is continued by the anesthetist until good spontaneous respirations are established. The patient is then placed in oxygen and given any supportive measures which seem necessary. Digitalization of the patient is advised by some. This is probably advisable in elderly patients or in patients with known heart disease. However, it should be done cautiously if calcium has already been administered.

Throughout this presentation we have mentioned several times the need for rapid, definitive action in the treatment of cardiac arrest. **This is the most important point of all—time waster trying to hear a faint heart beat (especially by two or three different examiners), or time spent in trying to obtain an electrocardiogram may spell doom to the patient. It has been estimated that three or four minutes from time of cardiac arrest to onset of effective massage is all the time allowed if recovery is to be expected.**

Summary

(1) A small bit of the experimental and clinical data related to cardiac arrest has been presented.

(2) An attempt has been made to correlate these data with a plan for prophylaxis and treatment of cardiac arrest.

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MODERATE TREND IN DERMATOLOGY *

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Among the many items of progress in the field of dermatology over the past year, time permits the discussion of only a few. We will attempt to discuss briefly those which concern us most in our everyday practice and those which will be of most value to us.

ACTH and cortisone probably still hold the limelight in the treatment of a rather large number of dermatoses, and certainly work with these hormones still deserves prominent mention among the year's achievements. Although steady progress has been made, it would be unsound at this time to summarize the present status of ACTH and cortisone therapy in this field. Too much fluctuation still exists in the minds of observers of equal ability and knowledge concerning the effectiveness of these hormones in the treatment of various dermatological conditions. Too, there is much disagreement as to the wisdom of selecting such a potent drug for the treatment of some dermatoses which seem to respond with such ra-

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pidity. Obviously such disagreement will require months or even years to overcome and for exact indications and dosages to be established.

At the present time, ACTH and cortisone appear to be very beneficial in the treatment of atopic dermatitis, allergic eczematous contact type dermatitis, exfoliative dermatitis due to various causes, acute and sub-acute disseminated lupus erythematosus, pemphigus of various forms, acute urticaria and angioneurotic edema, the erythema multiforme group, numular eczema including eczematous eruptions of the hands, distinctive exudative discoid and lichenoid chronic dermatosis of Sulzberger and Garbe and impetigo herpetiformis. Its value is questionable in the treatment of skin lesions associated with lymphatic leukemia, the lymphomas and mycosis fungoides, pruritis ani et vulvae, seborrheic dermatitis, circumscribed lichen chronicus simplex, chronic discoid lupus erythematosus, post herpetic neuralgias, psoriasis, chronic urticaria and alopecia areata.

All available evidence points to the fact that neither ACTH nor cortisone bring about a cure in any event, but rather they counteract certain abnormal inflammatory and metabolic processes in various tissues thereby acting as a "crutch" to the patient until the disease process has run its course, or until it goes into a state of remission. With this in mind, and with the serious ill effects of side reactions also in mind, it is not always an easy matter for the physician to decide when their use is indicated and when it is contraindicated. Obviously, in a desperately ill patient suffering from pemphigus or acute lupus erythematosus, the decision whether to use one of these drugs is not difficult. In such cases they perform a life saving function. However, when the patient has a so called benign but nevertheless distressing chronically recurring eruption such as atopic dermatitis, the decision is much more difficult. It is therefore apparent that the decision as to where, when and how these hormones are to be given can be made only on the basis of the well considered judgment of each individual physician concerning each individual patient.

Contrary to the few early favorable reports, it is now fairly well established that local applications of cortisone acetate to the skin are of no value in altering the course of a disease which responds so well to its systemic administration. In contrast, however, to the ineffectiveness of external applications and local injections of cortisone acetate, it has been discovered that local injections or the topical application of ointments containing compound F appear to exert curative effects on many types of common skin lesions such as various forms of atopic dermatitis, numular eczema and perhaps also of some other itching skin maladies such as pruritis ani et vulvae, eczematous dermatoses of the hands, eyelids, etc., circumscribed neurodermatitis and others. With increasing study and experience with these drugs used locally we will undoubtedly find that they will have their place in the therapeutic armamentarium of dermatology.

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The successful use of antibiotics in the treatment of cutaneous infections constitutes one of the milestones of progress in dermatologic therapy. More and more, justifiable emphasis is being placed on the use of the antibiotics in the treatment of cutaneous pyogenic infections. These new, highly effective therapeutic agents have revolutionized methods of combatting many bacterial and treponemal infections, some rickettsial infections and even a few diseases caused by virus. In both topical and parenteral use, antibiotics have largely replaced the more toxic suflonamides and have rendered older medicaments obsolete in the treatment of many bacterial infections of the skin.

In superficial processes, particularly impetigo, ecthyma and superficial pyogenic ulceration, where effective contact between micro organism and remedy is at its optimum, the response to topical therapy is excellent and often dramatic. When direct contact is diminished, as in the folliculitides, in furunculosis and in sycosis vulgaris, the initial response may be good, but resistance and recurrence after a short interval are the rule. When the inflammatory reaction is diffuse and direct contact of externally applied antibiotics with the micro organism is at a minimum, as in carbunculosis, erysipelas, cellulitis, etc., topical application is of little or no value. In this group, systemic administration of the properly selected antibiotic is indicated.

Present indications are that Neomycin, Aureomycin, Terramycin, Chloramphenicol and Bacitracin, when used locally are effective against hemolytic staphlococci and hemolytic streptococci, with Neomycin holding slight superiority in effectiveness. Neomycin and Chloramphenicol are probably more effective against the proteus group and Polymyxin-B against pseudomonas with Neomycin ranking a close second. There seems to be considerable agreement among competent observers that Neomycin is usually more effective than other topical agents in most pyogenic infections of the skin. All of these antibiotics seem to have a low capacity for the inducement of

sensitization reactions when applied topically. Bacitracin and Neomycin are probably less frequent sensitizers than the others mentioned. Acute cutaneous moniliasis may develop at the site of application of any of these antibiotics.

Of the antibiotics recommended for the systemic treatment of cutaneous bacterial infections, penicillin appears to be the best in acute staphlococcic and streptococcic infections, whereas strains of these organisms isolated in chronic pyogenic infections of the skin are more apt to be resistant to penicillin and respond better to other antibiotics. Chloramphenicol, Terramycin and Aureomycin all have a wide spectrum of effectiveness, including a rather high percentage of strains of staphlococcus and streptococcus, as well as some of the gram negative bacillary infections.

In general it may be accurately stated that for topical antibiotic therapy, it is always well to use one of the agents which usually is not employed for systemic administration. The incidence of sensitization will in this way be reduced, and the patient will not be deprived of a valuable drug for possible future treatment of a serious infectious disease. It is for this reason that the topical use of penicillin and sulfa drugs is strongly discouraged.

Contrary to earlier beliefs, the antibiotics are considered to be of little or no value in the treatment of erythema multiforme, dermatitis herpetiformis, recurring herpes simplex or in either the active phase of herpes zoster or the post herpetic neuralgia of zoster.

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Total or partial disability due to reactions from penicillin appear to be on the increase in recent months. Every physician in practice is confronted with the possibility that any individual to whom penicillin is administered may become sensitized to that antibiotic and develop an annoying, and at times disabling reaction. Perhaps this is due to the fact that more and more this drug is being used not only in relatively mild infections, but also in the prophylaxis of anticipated complications to these infections. We have reached the point where penicillin has been incorporated into practically every product which the individual may conceivably breathe, chew, drop, spray or smear. Tooth powder, nose drops and sprays, troches, chewing gum, eye and ear drops containing penicillin are recommended by neighbors to each other, or by the local pharmacist, usually without the sanction of a physician. Since sensitization to penicillin can and does occur through any mode of administration, the increasing, indiscriminate use of any products containing the drug has resulted in increased reactions among its users. It is very likely that reactions will continue to become increasingly more common as more and more patients are subjected to continued or repeated administration of the drug in some form or another. The following types of reactions have been described: urticarial, including serum sickness type of reaction, erythematous and erythemato-vesicular, purpuric, exfoliative, erythema multiforme, papular urticarial, bullous with or without hemorrhage and fixed eruptions. In addition to this many cases of contact eczematous type of dermatitis are reported from the local use of penicillin.

Moniliasis is a very frequent complication of penicillin therapy as well as with other antibiotics. The mucous membranes are commonly involved. Presumably the cause of this complication is a disturbance of the synergistic balance between organisms constituting the normal flora of an area of mucous membrane or skin flexure, produced by the antibiotic.

There is no satisfactory method of predicting an individual's reactivity to penicillin. Desensitization over a long period of time is not feasible in most cases, although it has been carried out with some degree of success in a few cases. It appears then that a decrease in reactions will result only from decreased usage of penicillin for minor conditions which are certainly less disabling than some of the reactions seen.

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Acne continues to be one of the big problems of the general practitioner as well as the specialist. Statistics show that it ranks probably in first place in the ten conditions seen most frequently in dermatologic practice. Because it does not constitute an immediate or ultimate danger to life, many practitioners are prone to pass over it lightly and not administer any real help to the patient who seeks help for this extremely menacing condition and one which the patient regards as serious. It is a disease which can be most ugly and disfiguring and causes far reaching social and economic disruptions and profound disturbances of personality and psyche. Doubtless the management of difficult cases of acne lies in the realm of the specialist and may require rather specialized therapeutic procedures; however, in view of the almost universal prevalence of acne, the management and even the sole responsibility for treatment of many patients is the inescapable duty of all physicians and particularly of the family physician.

The cause of acne vulgaris is still not clearly understood. Its inception is probably brought on by a chain of factors rather than by any single one. If we were to name any single factor without which acne could not occur, it would probably be that of endocrine disfunction. Still we cannot lose sight of the importance of diet, drugs, foci of infection, emotional factors and adequate local cleansing. Proper attention must be given to all of these if a cure is to be effected.

The ultimate goal of acne therapy is to prevent permanent disfigurement and to control the altered function of the sebaceous glands. It is pretty generally conceded that judicious systemic administration of estrogenic hormones provides an important therapeutic adjunct in the management of acne in the female patient. It is still questionable as to how much good is derived from such therapy in the male. Only small doses are recommended and usually not before the age of 17 when employed in male patients. The use of estrogenic substance in the form of lotions also appears to be of definite value in both male and female patients because of its absorption through the pilosebaceous apparatus. Vitamin A is of value, but large doses are required, usually in the neighborhood of 150,000 units daily until the process is under control. The dosage may then be gradually reduced to a maintenance dose. Some antibiotics are of great value in controlling infected lesions, particularly the nodulo-cystic variety. Terramycin, particularly, in our experience, has been a very valuable adjunct. Initial doses of 250 mg. four times daily for one to two weeks and then gradually reduced are in most cases sufficient. After the infection is controlled, a maintenance dose of 250 mg. daily or every other day is usually sufficient. Side effects are minimal and occur usually during the first week of heavy dosage. The use of penicillin in the treatment of acne has been disappointing.

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The treatment of seborrheic dermatitis of the scalp can and often times does become quite a problem for both patient and practitioner. Many a patient will remain free of erythema, scaling and itching of the scalp only as long as he faithfully persists in the use of various ointments, lotions and shampoos at semi-weekly or weekly intervals. This, however, is often too time consuming and too much a source of annoyance to the patient for him to carry on his treatment properly. It is true, too, that the disagreeable odors of tar and sulfur as well as their soiling effects on linen and furniture is a source of embarrassment. Recently a preparation containing selinium sulfide has been placed on the market which greatly simplifies the treatment of the dandruff patient and one which is effective in a large percentage of patients. This preparation appears to be effective in from some 87 to 92 per cent of cases depending on the type of disease. Ordinary dandruff, or pityriasis sicca, seems to respond better while in pityriasis steatoides, the percentage of cases relieved is somewhat lower. In psoriasis and psoriasiform seborrhea, the drug does not appear to be effective. In a few cases the oiliness seems to be increased. All in all, however, this preparation is quite effective and a very simple method of treatment in seborrhea of the scalp and one which the patient does not object to too strenuously.

The work of at least one investigator suggests that seborrheic dermatitis may be due to a metabolic defect in the skin which increases the local requirement for pyridoxine. The systemic administration of large doses of pyridoxine failed to cause improvement, but its use locally in the form of an ointment over affected areas resulted in clearing of the lesions. Recent work by others, however, has failed to duplicate these results.

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There is disagreement among investigators concerning the value of Riboflavin in the treatment of psoriasis. Weekly injections of 5 to 10 mg. intramuscularly have been reported to produce decided improvement. Other competent observers deny that they have noted any beneficial effect from this form of therapy.

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New promise of protection for sensitized areas of skin from contact with irritants and contact sensitizers, particularly where moisture is a big factor, has come through the development of ointments and creams containing silicones. These products are chemically inert and therefore have a very low toxicity and tend to cause little if any cutaneous sensitivity. Their adhesiveness and ability to repel moisture make them valuable protective agents not only in some of the occupational hazards but also in cases of irritation from colostomy or ileostomy drainage, diaper rash, decubitus ulcers, dermatitis venanata, perleche, chapping of the hands and face, certain cases of pruritis ani and irritation from persistent diarrhea or persistent leukorrhea. These products are not intended as a cure or therapeutic agent, but as a protection from further damage by exposure to irritants or sensitizers and protection from the ill effects of moisture.

Another drug, Atabrine, has been added to the already long list of those which are valuable in the treatment of chronic discoid lupus erythematosus. Its effect is almost dramatic in some cases, but like others which have been used for years, it fails in other cases. The percentage of "cures," however, appears to be sufficiently high so as to place this drug high on the list of "preferables" for use in the treatment of this disease. There is also some promise of its effectiveness in some cases of acute lupus erythematosus. The exact action of Atabrine in this condition is not known. It has the property of lessening sun sensitivity of the skin and perhaps it is in this way that it is of value in the treatment of lupus erythematosus. Like other drugs it is not without hazards, sometimes, though rarely, of a serious nature. One of the objections to its use is the sallowness or bronzing discoloration which it gives the skin.

RESOLUTION

WHEREAS, our colleague, Dr. Elmer H. Ellsworth, a native of Hot Springs, and son of one of our pioneer physicians, has been taken from our midst; and

WHEREAS, Dr. Ellsworth, because of his genial personality and professional skill, was liked by all of us; and

WHEREAS, Dr. Ellsworth, a graduate of Rush Medical College, began the practice of medicine here. His practice was general, with obstetrics as his specialty, and in the early years, his work along that line was extensive. He, also, was the surgical assistant of Dr. Wm. V. Laws for many years, and did himself a great deal of minor surgery. He was a Mason for many years, and was highly regarded by his fellow Masons; therefore

RESOLVED, that the Garland County Hot Springs Medical Society, in session assembled, express our appreciation for the fine service Dr. Ellsworth gave to our profession, that a copy of this resolution be spread on the minutes of our Society, that a copy be given to the members of Dr. Ellsworth's family and that a copy be given to the press.

THE RESOLUTION COMMITTEE,

Dr. Euclid Smith, Chairman,

Dr. Frank Adams,

Dr. D. C. Lee.

WHEREAS, God in His infinite wisdom has taken from our midst our colleague, Dr. Samuel Donald Weil; and

WHEREAS, Dr. Weil was endeared to us by his amicable manner and professional skill; and

WHEREAS, Dr. Weil, after studying medicine in Philadelphia and Baltimore, began the practice of his profession, as a general practitioner in Kentucky. In this he was very successful, so much so that when he left to come to Hot Springs, he was offered a good bonus to remain in Kentucky, and each time he visited his old home, this offer was renewed. Here in Hot Springs, he entered into general practice and served many residents as well as visitors efficiently. He gave much service through the years to the Leo N. Levi Hospital and served the hospital in numerous capacities; therefore

RESOLVED, that the Garland County Hot Springs Medical Society, in session assembled, express our appreciation for the fine service Dr. Weil gave to our profession, that a copy of this resolution be spread on the minutes of our Society, that a copy be given to the members of Dr. Weil's family and that a copy be given to the press.

★ Editorial ★

TREATMENT OF LOWER LARGE BOWEL CARCINOMA

FRANK G. KUMPURIS, M.D., Little Rock

The all precious function of the anal sphincter of complete control of passage of flatus and feces has prompted physicians in the past several decades to try all types of surgical tricks to preserve it in treating cancer. With these attempts has come a tremendous volume of literature, with each author stating that his or her way of treating this disease without sacrificing the anus is undoubtedly the best.

Medicine is not an exact science, as we all know, and it is because of this that such statements as "there is never a never or always in medicine" have come into being. No one may dogmatically state that one given procedure is the way to treat a given lesion at all times. Therefore, one may only say that all operations which have been advocated have their place, and the important question is to know that place.

With carcinoma of any type, one must first think in terms of a possible cure in considering the treatment. One must therefore think in terms of the primary lesion, and the gross and microscopically involved lymph nodes. This adds up to a radical en bloc removal of the carcinoma and the regional nodes as wide as necessary and possible.

When dealing with carcinoma of the lower sigmoid, rectosigmoid and rectum, one must answer one question before carrying out the treatment. How far could this cancer have spread and am I going beyond that point? Certainly, if the spread has been through the blood stream, one has no choice but to consider the operation as palliative. If the spread has been by direct extension, one must resect all adherent organs if possible. But the extent of the seemingly operable lesion must be governed by the lymphatic spread, and one should be sufficiently radical as to include all possible avenues of spread.

The lymphatics of the sigmoid colon follow the sigmoid and inferior mesenteric vessels to drain into the para-aortic nodes. The rectum drains via three systems. The superior system along with the para-rectal system drains along the superior hemorrhoidal artery and eventually to the first branching of the inferior mesenteric artery. The middle system drains along the hypogastric and the inferior system drains to the inguinal nodes. It has been a rather accepted thought for years that the lymphatics of this region drain in a cophalad direction. It is because of this that a physician may feel justified in resecting the bowel only a few centimeters caudad to the lesion, and feel secure that a curative operation has been done for his patient.

Unfortunately, according to Waugh and Glover, the above paragraph is not altogether true. They proved pathologically that carcinoma of the lower sigmoid rectosigmoid and rectum may also spread via the lymphatics towards the anus, therefore in a retrograde direction. They found that the spread may be as far as nine centimeters in the retrograde direction. Granting that only several out of a hundred patients will have a lymphatic spread nine centimeters in the retrograde direction, how can one tell whether the patient who is being operated on is one of the several who has this type of spread.

Therefore, to answer the question of how far could this carcinoma have spread, and am I going beyond that point, one should say the following. If the lesion is operable, it should be removed with the glands which are found in the mesocolon from the origin of the inferior mesenteric artery to a point at least nine centimeters below the primary lesion.

How far is it from the dentate margin of the anus to the rectosigmoid colon by proctoscopic examination? In most patients this figure will be somewhere between nine and twelve centimeters.

Therefore, by taking anatominal and pathological facts, and combining these with pathologically proven figures, one should conclude that there are only a few patients with carcinoma of the rectum who can ever hope to be cured with any operation short of a radical abdomino-perineal resection. One might apply the same statement to carcinoma of the rectosigmoid. These two lesions account for 62% of all of the cancer of the large bowel.

When dealing with lesions of the lower sigmoid, one finds the ideal situation whereby one might carry out a wide en bloc resection of the lesion and preserve the anal sphincter, while answering the necessary criteria for a possible cure.

The handling of the patient with a lesion of the rectum and rectosigmoid before surgery should be with the above thoughts in mind. The fact

that the patient may eventually have a colostomy must be a forgone conclusion. Many times, we as physicians accept the patient's fear of "an opening on the side" rather than project to the patient confidence that he or she can master the colostomy. All too frequently, it is the projected fear of a patient towards a colostomy that may influence a sphincter preserving operation as therapy instead of the more radical abdomino-perineal resection, which might be necessary in order to remove the nine centimeters of tissue caudad to the lesion. Patients must be made to realize that they can carry on normal activities with a colostomy, that they can be with friends, indulge in sports and live a normal life. They must be made confident that they can be the master of the colostomy, and not have the colostomy be their master.

CONSTANCY IN MEDICINE

FOUNT RICHARDSON, M.D., Fayetteville

It is something to have lived through an era. To see the rise of a school of thought in medicine, to see it flower into the best treatment known, through the currents and eddys of various opinions and then to see it supplanted by a different method or drug or procedure is conducive to sober reflection.

Within the span of memory of many physicians, the medical management of typhoid fever has gone through many changes. A news dispatch from a faraway army post reporting a typhoid fever epidemic may point up a passing of the typhoid "shot" era. All personnel had been innoculated. An overwhelming infection must have occurred. The doctors turned to "chloramphenicol" and stopped the epidemic in a few days. We think of the age of chemistry. No more "shots!" Is it possible? Not yet, but possibly the "shot" era is passing, at least in typhoid. We are truly witnessing remarkable medical improvements. What's good today is gone tomorrow. An old druggist used to say: "Time always proves the Doctor's wrong."

What, then, is constant in our medical world? Only this; the desire of the true physician to try to find the most satisfactory device to use, to heal the sick, tc alleviate pain and to repair the wounded. A physician is constant in his efforts to keep pace in a changing scientific world and to apply the changes for the good of his brother. He is constant in his desire to improve the physical, mental and moral status of his fellow man. There will always be physicians and those devoted to these ideals will not fail. They are constant.

THE LEGISLATURE AND YOUR RESPONSIBILITY

HON. PETER A. DEISCH, Helena

Members of the Legislature will soon be chosen by vote of the people. Doctors should recognize their responsibility as good citizens, and inquire into the fitness of those who aspire to the office of Senator and Representative. By engaging in conversation with the candidates we will show them that we are interested in their problems, and they in turn will be inclined to consult with us as to those measures which we deem to be expedient.

Our government will be what we make it; it will be moulded by some of those who qualify as candidates on or before April 28th. By conversing with the candidates we will be enabled to assist in the election of those who will serve Arkansas faithfully and well. To do that they must understand and appreciate the value of medicine, as exemplified by our Society.

PUBLIC RELATIONS

Physician
Patient
Personal

CIVIC RESPONSIBILITIES

As physicians we owe much to our communities. One way in which we may discharge our obligation is to accept the civic responsibilities and duties which any leading citizen should assume. Being busy practicing physicians is of itself a very good reason why we should devote some of our time and effort and influence to the good activities of our locality. The churches, the schools, the civic clubs, the charitable activities and, by all means, the local government deserve our support.

Probably no medical public relations activity would be necessary if most of the medical practitioners of the United States would take active part in their local affairs. Such things as "grass roots" conferences and influence would never have been needed if we doctors would express ourselves clearly and firmly on questions of local importance.

The professional and personal conduct of physicians should be above reproach. In lay or professional meetings, or indeed anywhere at any time, our own conduct reflects impressions of medical men as a whole. Only we can make sure these impressions are favorable. Do not allow unfavorable remarks to be made about all physicians because your actions or mine were questionable.

Our local community leaders have the opinion of organized medicine that we have given them by deed or by example.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE ROLE OF ANTIBIOTIC DRUGS IN THE TREATMENT OF TUBERCULOSIS

By FREDERICK BECK, M. D.

New York State Journal of Medicine, October 15, 1953

In the past five years the treatment of tuberculosis has changed as a result of the rapid development and application of antimicrobial therapy and thoracic surgery. Concomitantly, one would suspect that the treatment of tuberculosis should become simple, but actually it is more complex because many more patients are suitable for surgery which requires (1) selection of drugs, (2) determination of the type and timing of surgery, and (3) consideration of duration of postoperative drug therapy.

The development of tuberculosis antimicrobial therapy has been rapid beginning in 1947 with the introduction of streptomycin which was soon followed by para-aminosalicylic acid, the thiosemicarbazones, and in late 1951 by the nicotinic acid derivatives. These drugs in various combinations have become very popular. In reviewing the patients with active disease at Ray Brook State Tuberculosis Hospital (N. Y.) these drugs are currently being used on 50 to 60 per cent of the patients, and practically all the remainder have been treated with drugs at some time. There is an increasing trend toward immediate chemotherapy or antibiotic therapy of tuberculosis patients upon diagnosis and, in fact, even upon mere suspicion of the disease.

The treatment of nontuberculous disease as tuberculosis is not rare, and the importance of the bacteriologic diagnosis before initiating such treatment should be stressed. There are occasional instances where after prolonged study for several weeks bacteriologic proof is lacking. However, in these cases the possibility of non-tuberculous infectious disease such as broncho-pneumonia, virus pneumonitis, or fungous disease should be carefully evaluated. It is important to secure information concerning the **in vitro** sensitivity of the patient's organisms at the start of treatment. By this is meant a determination of the effect of varying concentrations of streptomycin, para-aminosalicylic acid, and isoniazid on the bacilli to establish whether there is a drug effect and at what level. Knowledge of the sensitivity enables one to favor those drugs demonstrated to be effective by the **in vitro** tests.

Today drugs are used in combination. It was found quite early that when streptomycin was used alone, resistant organisms might be recovered several weeks after start of treatment and were in the majority after 60 days. The addition of PAS delayed and reduced the incidence of resistance.

At present the best combination, from a therapeutic, bacteriologic, and radiologic standpoint is streptomycin and PAS. In 1951 and 1952 a comparative study of streptomycin and dihydrostreptomycin in the New York State tuberculosis hospitals showed that there was no difference in therapeutic efficacy at 120 days of treatment and no significant difference in emergence of drug resistance. Vestibular disturbances are more frequent, of greater severity, and often occur earlier when streptomycin is used while auditory disturbances are more frequent with dihydrostreptomycin and may progress after treatment is stopped or may appear after conclusion of treatment.

With regard to dosage, a group of patients in the Ray Brook Hospital recently studied has been alternated between 1 gm. daily of streptomycin and 1 gm. of streptomycin three times a week. In addition to the streptomycin, they received 12 gm. of PAS daily. At an evaluation after 120 days we were unable to recognize any significant difference between the two groups from a clinical, therapeutic, X-ray, or bacteriologic standpoint and have tentatively reached the point where we believe that 1 gm. of streptomycin given three-times-a-week is as effective as the same amount daily and is more convenient and potentially less toxic for longer periods of treatment.

Isoniazid has been used by us since early 1952. The original studies were done in cooperation with several other sanatoria in the Saranac Lake area. The first cases treated were, for the most part, far advanced with organisms resistant to streptomycin, and iso- and iproniazid were used in alternate cases. Practically all of these cases developed resistance to the drug rapidly, and it was decided to test the drug in combination with streptomycin or PAS. The clinical progress of patients on both of these combinations is quite satisfactory. Data which will indicate whether isoniazid is as effective as PAS in postponing streptomycin resistance are now being sought. If it is, isoniazid would seem to be a more satisfactory drug to use in combination with steptomycin than PAS, which often causes allergic manifestations. On the other hand, in view of the fact that there are more strains of tubercle bacilli naturally resistant to INH, this combination may not be as effective in regard to the development of INH resistance.

When one considers optimum duration of therapy, we must take into account our concepts of the treatment of the disease and our objectives. The past decade has been marked by a better understanding of the potential hazard of residual disease foci and by the demonstration of the practicability of surgical removal of lobes, segments, or smaller areas of diseased lung tissue.

Some patients are not suitable candidates for surgery because of such factors as extent and distribution of disease, age, or general condition. The trend in this group has been toward longer courses of antibiotics.

In the bacteriologic study of resected lung specimens, it has been repeatedly demonstrated that acid-fast bacilli can be found microscopically in many specimens, but cannot be grown by culture, nor will they produce disease in guinea pigs. The same situation can occur in old, encapsulated or arrested lesions. It would be desirable to determine whether it is truly possible to kill all the tubercle bacilli in the host with longer terms of therapy or whether these bacilli are only in a dormant phase.

Hospital care is necessary at some period for every patient with active tuberculosis. The problem is much broader than that of medical treatment alone. If the patient has a positive sputum, he is a source of infection to others, and he should be in a hospital. Home care is an important adjuvant to hospital care but must be organized with an adequate staff and carefully coordinated in order to achieve the maximum medical and rehabilitation benefits. In answer to the common belief that patients will be more content at home. I shall only say that I am convinced that patients can become content in a tuberculosis hospital if the hospital standards are high and if proper attention is given to the interpersonal relationships of the hospital personnel and the patients.

OBITUARY

ARTHUR F. HOGE, 66, died at Fort Smith, February 21st. A graduate of Tulane University of Louisiana in 1909, he had practiced in Fort Smith since 1911. He was president of the Tulane Alumni Association in 1951-52, was a past-president of the Sebastian County Medical Society and of the Noon Civics club, a member of the American Medical Association, a fellow of the American College of Surgeons and a charter member of the Southwestern Surgical Congress. He had served as division surgeon for the Kansas City Southern railway for many years. He was active in civic and community affairs, a member of the Chamber of Commerce, a director of the City National Bank, vice-president of radio station KWHN and president of the Western Arkansas Hereford Breeder's Association. He was married to Miss Lille Belle Boyd in 1913, who, with two sons, Drs. Marlin B. Hoge, and Arthur F. Hoge, Jr., and one daughter, survive him.

JESSIE E. LITTLE, age 74, Fort Smith, died March 16th after a long illness. Born in Sebastian county he graduated from the University of Nashville Medical Department in 1901. He was formerly on the staff of the Holt-Krock clinic and had been resident physician at Wildcat Tuberculosis Sanatorium for over ten years. He was a member of the Masonic bodies, Woodmen of the World, Fraternal Order of Eagles and of the First Presbyterian church.

EDWARD F. BREWER, 86, died at Augusta February 26th. Born at West Point, he graduated from Memphis Hospital Medical College in 1908, first locating at Grays and later moving to Augusta. He was a 50-Year member of the Arkansas Medical Society and of the Masonic lodge and a member of the board of stewards of the Methodist church. Surviving are his wife and three daughters.

PERSONALS AND NEWS ITEMS

W. R. Scarborough has been elected vice-president of the Clarksville Rotary club.

W. M. Hamilton, Little Rock, and Lewis Hyatt, Monticello, attended the recent course in cardiology at Tulane University.

Attending the New Orleans Medical Assembly during March were W. L. Shippey, Fort Smith; Julius Hellums, Dumas, and H. M. Keck, Fort Smith.

MARRIED—On March 7th, Clarence Glenn and Miss Blanche Phelps Yandell, Fort Smith.

A. A. Blair, Fort Smith, spent a recent vacation in Alabama.

Jacob Ellis has been appointed city health officer at El Dorado.

Charles G. Leverett, McGehee, attended the recent meeting of the New Orleans Medical Assembly.

S. W. Hawkins and H. C. Darnall, Fort Smith, and Dorothy Goetze, Hot Springs National Park, conducted a diagnostic cancer clinic at Mount Ida March 10th under the sponsorship of the Arkansas Division, American Cancer Society.

J. J. Monfort, Batesville, has been appointed Chairman, Committee on Cancer Control, Arkansas Division, Veterans of Foreign Wars.

Walter J. Grant announces the association of John W. Mercer with him in practice at 315 East Sixth Street, Little Rock, specializing in psychoanalysis.

The American Medical Education Foundation announces receipt of a contribution from L. G. Fincher, El Dorado, in February.

S. M. Wilson, Rogers, recently took special work at the University of Kansas.

Dr. and Mrs. Henry G. Hollenberg, Little Rock, spent a recent vacation at Fort Lauderdale, Florida.

W. E. Phipps, Jr., North Little Rock, announces the association of Thomas W. Carroll.

H. C. Dorsey, Fort Smith, has been appointed resident physician at Wildcat Mountain Sanatorium.

Swan Moss, McGehee, has been elected a deacon in the Presbyterian church.

Paul Stroud has been elected a director of the Jonesboro Rotary club.

W. M. Woods, Huntington, and Robert Thompson, Fort Smith, attended the recent New Orleans Medical Assembly.

Joe Verser, Harrisburg, has been elected president-elect, Mid-South Postgraduate Medical Assembly.

Milton Barker has re-located at Jacksonville.

H. W. Thomas, Dermott, has been elected vice-president for Arkansas of the Mid-South Postgraduate Medical Assembly.

Frank M. Lockwood has joined the staff of the Holt-Krock Clinic at Fort Smith.

Louis K. Hundley, Pine Bluff, presided as chairman of the Arkansas Conference on Social Work at Little Rock March 22nd and 23rd. Speakers on the program were: J. J. Monfort, Batesville; E. J. Easley and Hayden C. Nicholson, Little Rock.

J. P. Price has been elected a director of the Monticello Rotary club.

Dr. and Mrs. Alfred Kahn, Jr., Little Rock, spent a March vacation in Florida.

Dr. and Mrs. E. C. Moulton, Jr., Fort Smith, spent a recent vacation at Aspen, Colorado.

D. W. Goldstein, Fort Smith, visited in San Antonio during February.

Fount Richardson, Fayetteville, has been appointed Councilor from Arkansas to the Southern Medical Association, to take office at the close of the 1954 annual session in November.

Thomas W. Carroll, North Little Rock, recently spoke to the Oil Mill Superintendent's Association on "Safety in Industrial Plants."

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PROCEEDINGS OF SOCIETIES

The Second Councilor District Medical Society met at Heber Springs March 15th for the following program: "Troublemakers," Alfred Kahn, Jr., and "The Traumatized Hand," Kenneth Jones, both speakers of Little Rock. J. J. Monfort, Batesville, discussed pending legislation in Congress. The Society will next meet in October at Searcy.

Faulkner County Medical Society has elected the following officers: President, N. E. Fraser; Vice-president, C. H. Dickerson, Jr., Secretary-treasurer, B. F. Banister; Delegate, Keller Lieblong, and Alternate, John W. Sneed, Jr.

The Southeast Arkansas Medical Society met in dinner session at Monticello for the following program, jointly sponsored by the Committee on Cancer Control, Arkansas Medical Society, and the Arkansas Division, American Cancer Society: Motion picture film—"The Silent Shadow"; "Surgical Aspects of Carcinoma of the Lung," Peter O. Thomas, Little Rock; "Radiological Aspects of Carcinoma of the Lung," Edwin F. Gray, Little Rock, and "The Program of Public Education and of Service to the Cancer Patient in Arkansas," W. R. Brooksher, Fort Smith.

The Sebastian County Medical Society was addressed March 9th by Mrs. Ova Stuart on the provisions of the Social Security System.

J. B. Thompson, Secretary.

The Postgraduate Course in Pediatrics held at the University of Arkansas School of Medicine March 17th and 18th was addressed by M. E. Lahey, Cincinnati; James R. Doores, Fayetteville; Roger B. Bost, Fort Smith, and Frances E. Brennecke, E. F. Erwin, I. Meschan, C. W. Shafer, J. W. Headstream, John M. Fulmer, B. P. Briggs, N. J. Johnson, E. H. Crawley, Ruby Yuan, J. W. Eliot, H. D. Venters and R. L. Vernier, Little Rock.

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WOMAN'S AUXILIARY

The Woman's Auxiliary of the Boone County Medical Society held its regular monthly meeting February 2nd at the Hotel Seville with ten members present. The president, Mrs. Ross Fowler, presided.

After a short business session, Mrs. Fowler introduced Mrs. A. A. Little of Texarkana, president of the Arkansas Medical Auxiliary, who outlined the theme of the conventions of the A.M.A. held in New York City and the Auxiliary to the A.M.A. held in Chicago during 1953. She also told of this year's Auxiliary objectives and explained how these plans should be carried out on a county level.

Valentine decorations were used with a centerpiece of red gladiolas and white candles in red holders. Guests were Mrs. M. J. Kilbury of Little Rock, Mrs. J. P. Williams of Marshall, and Mrs. J. S. Priddy of Green Forest.

BOOK REVIEW

Sexual Behavior in the Human Female: By Alfred C. Kinsey, Wardell B. Pomeroy, Clyde E. Martin, Paul H. Gebhard, Research Associates; and others on the Staff of The Institute for Sex Research, Indiana University. Foreword by Robert M. Yerkes and George W. Corner. 842 pages 151 charts—179 tables—4 illustrations. Philadelphia and London: W. B. Saunders Company, 1953. Price $8.00.

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Many of the conclusions of the writers as set forth in this book have been the subject of a great amount of conjecture and comment in the lay press prior to actual publication date. The lay reader is doubtless far more familiar with the evidence and its conclusions than is the physician. Unquestionably, the authors have devoted effort of painstaking variety in reaching their conclusions. The accuracy of the testimony seems doubtful to us.

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NEWS—Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to the membership.

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• SPECIAL FEATURES

Committee on Cancer Control.... 213

The Art and Science of a Personal Physician.... 214

The Doctor and Industry.... 220

The Ophthalmoscopic Signs of Hypertension and Arteriolar Sclerosis.... 223

• FEATURES

Index—The Journal of the Arkansas Medical Society, Volume L.. 224

Editorial.... 226

Tuberculosis Abstracts.... 227

Obituary.... 228

Proceedings of Societies.... 230

Book Review.... 230

The JOURNAL
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Vol. L MAY, 1954 No. 12

COMMITTEE ON CANCER CONTROL

C. A. ARCHER, Chairman
Conway

CARCINOMA OF THE BREAST

The intensive campaign of the American Cancer Society to teach women the signs and symptoms of cancer of the breast and the method of self-examination is demonstrating the interest of women by the increasing number who present themselves to the physician with breast symptoms. The physician needs well to give proper consideration to the diagnostic problems of breast lesions.

No method has yet been devised which yields better results than physical examination, biopsy excepted. The localized tumor mass is frequently the first sign of a breast malignancy but there are other signs such as skin retraction, nipple erosion and discharge, an enlarged axillary node and edema without an associated palpable tumor. Any of these signs must arouse the suspicion of a breast malignancy.

The physician must be alert, attentive and thorough if he is to give his informed patient the diagnosis which she seeks.

THE ART AND SCIENCE OF A PERSONAL PHYSICIAN*

ALBERT S. DIX, M.D., Mobile

The title of this discussion: "The Art and Science of a Personal Physician", is one which perhaps needs a little clarification. What is the Art of Medicine? What is Medical Science? What is a Personal Physician? Is it possible for a personal physician to practice what is known as good, scientific medicine?

Sometimes the terms we use are confusing, as was in the case of the newcomer to our shores who had some difficulty in choosing the right word, although he had studied the English language. On being asked why he and his wife had no children, his first reply was, "My wife is inconceivable." Sensing that this reply was not quite adequate, he said, "What I mean is that my wife is unbearable." And then, still not quite satisfied with the expression on his listener's face he said, "What I'm trying to say is that my wife is impregnable." Now I was satisfied before I came here that the moral to this story or any other story that I might attempt to tell would be not to try to say anything funny in Bob Robins' home state, because I am sure you have heard them all. However, I hope that this subject which I am attacking today will not be impregnable, that the ideas that I attempt to get across will not be inconceivable, and that the presentation will not be unbearable.

There is little new in the art of medicine. It is as old as the medical profession and it is the art of medicine that gives purpose to the medical profession. In our modern age, when the rapid and **ever pyramiding accumulation** of scientific data has tended to emphasize the science of medicine, we are likely to lose sight of one important fact: that during the many centuries of the past, and to no lesser extent today, the **most important objectives** of the medical profession are to give **comfort, healing,** and **longer life.** Whenever any system of medical practice places these objectives in a secondary status, that system is foreign to our purposes and those who practice it are unworthy of the profession which they claim. Two thousand years ago, Hippocrates said in his famous oath, "The system I adopt shall be for the benefit of my patients, according to my ability and judgment. Whatsoever house I enter, there will I go for the benefit of the sick".

Before the age of specialization in medical practice, it was possible for each physician to acquire the available knowledge and still have time to equip himself with those other qualities of mind and heart with which he must be possessed. We are all a part of our system and we reflect in our daily activities, our thinking, our training, and our experiences. Medical students for the past few years have been so weighted down by scientific facts that little room has been left in their thinking or in their training for emphasis on the art of medicine. Medical science furnishes the tools with which to practice the art of medicine. The tools are important but the artisan who uses the tools is even more important. Stradivarius had no modern machine tools with which to make his violins, but his art far surpassed many who have come after him and who have had more modern tools with which to work. There are many tools now available in medical science.

George Packer Berry, Dean of Harvard Medical School and immediate past president of the Association of American Medical Colleges, said that the medical school curriculum has grown and grown by the addition of factual material to where it has become unwieldy, so much so that it is in danger of defeating its own objectives. He likened it unto the dinosaur which grew and grew and having passed the point of stability collapsed of its own weight. Many teachers feel that the continuous squeezing of more and more facts into the curriculum is leading to the same fate. It is important that the essential art of medicine be not crowded out by the maze of new scientific facts. As in the words of the greatest teacher of all, "These ye should have done, but not to leave the other undone."

Changes due to scientific advance are not at all peculiar to the medical profession. Practically all fields of endeavor today have become so complex and full of minute details that it is impossible for one person to cover the field by himself. In the building art, within the memory of some here today, it was possible for one skilled artisan with unskilled help to build a house, and this was frequently done. As plumbing, wiring, and now air conditioning, have come to be an essential part of the building, specialists have trained themselves for these jobs. However, they cannot work independently but must of necessity follow the plans and do their work under the general direction of the contractor. The contractor may not be an expert plumber, electrician, or air conditioning engineer; he may not be the best carpenter, plasterer or painter available for those individual jobs, but his work of co-ordinating, integrating and supervising the entire job is absolutely essential. It is difficult to imagine how the house would look if all the skilled and well-trained technicians worked entirely independently according to their own individual ideas and without any overall plan.

* Read before the Arkansas Academy of General Practice, Little Rock, October 14, 1953.

Specialization in medicine did not come about in the same way in which it did in the building trades or in manufacturing processes and other industries. There were no electricians before Benjamin Franklin, no telephone repairmen before Alexander Graham Bell, and no technicians specializing in the care of radio and television sets until these had been invented. The specialists came in to fill a definite purpose because no one ahead of him was doing the job. This is not so in medicine. There have always been babies long before the first doctor called himself a pediatrician. Women did not wait for obstetricians to have children. The cardiologist did not step into a field that was new. Nor is the field of surgery a new field except for a few highly limited sub-specialties, such as cardiac surgery. No, specialization in medicine has not come about by careful planning or to fill existing needs. Specialization in medicine came about by the collapse of the dinosaur, which, when it collapsed, broke into many fragments. Many doctors have picked up one fragment alone and have pursued it as a specialty. They have concluded and rightly so that they could not efficiently carry the weight of the entire beast. I said that specialization did not come about by careful planning or in order to fill a need. I do not mean to imply however, that specialists in medicine do not fill a need. There is overwhelming evidence to the contrary. Their knowledge and skill are absolutely necessary for the well being of many patients. But let us go back a minute. This dinosaur of medical science collapsed and broke into many pieces but the patient remains the same. He is not broken into many pieces. His nature and physiology is the same as it was in the days of Hippocrates. The body still has a tendency to get well. The intricacy of human anatomy and physiology cannot and has not been fragmented by the arbitrary division of the medical profession into specialty groups. You still have one person indivisible demanding a complete and overall study.

Criticism directed toward the specialties has pointed out that in picking up one fragment of medical science the specialist of necessity tends to neglect the rest of his patient. Criticism directed toward the general parctitioner states that in attempting to pick up the whole dinosaur, the general practitioner finds himself stumbling and falling carrying his patient with him. The answer must come in co-operation and mutual respect for doctors both in the specialties and in general practice who have three primary objectives in mind, to relieve suffering, to promote healing, and to prolong life. Those in either specialties or in general practice who have other objectives can not hope for or obtain the respect of their colleagues. I have mentioned the term specialist and general practitioners. The question frequently arises even in our academy, "What is general practice?" We all know the definition of a general practitioner which was adopted by the Congress of Delegates at our San Francisco meeting in 1951. "A general practitioner is a legally qualified doctor of medicine who does not limit his practice to a particular field of medicine or surgery. In his general capacity as family physician and medical advisor, he may, however, devote particular attention to one or more special fields, recognizing at the same time the need for consulting with qualified specialists when the medical situation exceeds the capacity of his own medical training or experience." Many general practitioners limit their practice in various respects. Some do no surgery, some do no obstetrics. I met one recently who does no pediatrics. We make no attempt to prescribe what branches of medicine a qualified doctor engages in.

Our members must not, however, limit their practice to the point where they cannot serve as personal or family physicians. There are other groups in our profession who also can serve as personal physicians to their patients. The group that does the best job in this regard is the pediatricians. The pediatrician does not limit his practice by systems and organs. He is indeed interested in the entire individual, his growth and development, his nutrition, his environment. He does the best job of all in preventive medicine. His methods serve as a pattern by which we in general practice might improve our service to our patients. He has regular patients, and he follows them up. Our diabetics, hypertensive and heart cases lapse because we do not follow them up. We have more tetanus in our patients than he has in his, because in his practice, immunization is routine. His Board of Pediatrics has only one purpose, to encourage and recognize a qualified pediatrician. It does not limit his practice. It welcomes and encourages qualification in other specialties, in order that he may do a better job of taking care of his patients.

Several of the specialty boards would permit their members to serve as personal physicians to their patients, such as the American Board of Radiology, which only requires that 75% of the physician's work shall be in radiology. There are a few Boards, however, that require their members to limit their practice 100% to the specialty, such as the American Board of Surgery, The American Board of Orthopedic Surgery, and the Board of Obstetrics and Gynecology. Those who practice according to the rules of these Boards must limit their practice to referred patients, or they must insist that the patient who comes first to them get under care of another doctor right away in case

something happens to them not related to the specialty. Otherwise the patient would have no doctor.

I wish to make myself clear that I have the highest regards for my friends in the various specialties, and I admire them for their advanced training and the quality of medical science which they practice. On the other hand, when a physician or surgeon is bound more by the rules of his specialty board than he is by the oath of Hippocrates, when he cannot without violating those rules treat a cold in his surgical patient or take care of a medical emergency, let him not confuse the public. Let him do as I once did in public health work, admit that he cannot fill the patient's total needs. He belongs in the same group as the pathologists, the research workers and the full-time teachers. His work is important as far as it goes but he cannot be counted on to serve as anyone's personal physician.

It appears very unfortunate that the American Board of Gynecology and Obstetrics will not permit their members to serve as personal physicians to women very much as pediatricians serve as personal physicians to children. The sign on the office of the pediatrician reading, "Diseases of Children", means what it says; On the gynecologists' door the sign should read, "Practice limited to certain diseases of women —other diseases not covered". Their Board now includes abdominal surgery and urology in the female as gynecology. What's in a name anyway? One can define gynecology to include what the dictionary says it means, "The science of the diseases of women." Their Board strictly prohibits accepting male patients for surgery. I shouldn't tell this in public, but I recently observed one of their members operating on a male patient. He was performing a circumcision on a newborn boy. Limitation of practice does not produce competence in any field.

Who is competent to treat heart disease, the cardiologist, the internist, or the general practitioner? Who is competent to do a hysterectomy, the gynecologist, the gynecologist-obstetrician, the general surgeon, or the general practitioner? Shall we consider the eye, ear, nose and throat specialist incompetent to treat eye diseases because there is a physician available who treats only the eye? The medical profession is confused and it is easily understood how confusing our whole system must be to the patients.

Can we blame the diabetic with urethritis due to sugar for going to the urologist or the hypertensive patient for consulting the ophthalmologist? Urology would be a good field for the general practitioner because undoubtedly he gets the diabetics, children who wet the bed, cardiacs with nocturia, the nervous patients with frequency, the multipara with cystoceles, the fibroids of the uterus pressing on the bladder, and the early pregnancies. In every case, the patient went to the wrong doctor.

What is the solution? If a dividing line is to be drawn, where shall it be drawn? The line cannot be drawn in the science of medicine. It must be drawn to separate on the one hand physicians highly trained in the specialties whose primary interest is in the science of the specialty, and on the other hand physicians also well trained and some highly trained in specialties whose primary interest is in the patient. This last group which includes most physicians in general practice and many in the specialties is made up of those who may be called personal physicians to their patients.

Just as a wise business or corporation consults its attorney before taking important steps which might even possibly involve a legal question, so an individual or family consults his personal or family physician before making any decisions or taking any action which might directly or indirectly be related to his health. He realizes that while he does not expect the one doctor to be expert and highly skilled in all fields of medicine he does recognize that his doctor is in a far better position than he is to direct his medical care whether it be over the telephone, in the home, in the office, or in the hospital and whether the medical problem requires the services of one or a dozen physicians and surgeons. A physician whose interest lies in a particular field can scarcely fill the need of the patient unless he will in addition take care of minor needs in any field and direct the patient's medical program in close co-ordination with other physicians.

The people of America have the best doctors in the world. Is it not strange then that there is and has been for several years so much dissatisfaction on the part of the American public as to the medical care available to them? I said the people of America have the best doctors in the world. I was wrong. The best doctors in the world live in America, but the people do not have them. In the middle of the night when the phone rings, the question is asked, "Doctor, do you make night calls?" and I answer with another question, "Who is your doctor, your regular doctor?" The answer almost invariably comes back, "We don't have one." No, the people of America do not have the best doctors in the world. But they live in their cities, in their towns, in their communities. If the people had them as their doctors, there would be no clamor for socialized medicine, there would be no problem where public support

is given cultists who are seeking to attain legal status to treat sick people according to their own methods. The diabetic, had he a doctor, would not go to the urologist, nor would the patient with hiatus hernia consult first the cardiologist.

In discussing the drifting of patients from doctor to doctor, I recently heard a physician make the remark that no doctor could call a patient his own. He said, "The patient is only yours as long as he is in your office for tomorrow he may go to someone else." With this philosophy, the doctor could add, "I'm not going to be concerned with him and his problems except while he is in my office."

We have been concerned in recent years with what we call public relations. Our public relations are simply the total of our personal relationships with our patients. Our personal relationship to our patients is part of the art of medicine. During recent years we as individual doctors and the medical profession as a whole have been too busy practicing medical science to actively participate in civic and community projects thus permitting medical care projects to spring up from without the medical profession. We have not practiced what T. C. Terrell, President of the Texas Medical Association, calls "The Citizenship of Medicine."

The doctor has not insisted that the personal relationship be respected by industry, labor unions, schools and other institutions, and government. He has been losing the battle by default and without great concern. He has fumbled and lost the ball. Many groups are seeking on their own methods of improving medical care **service** to the people.

In my opinion the most important factor contributing to the dissatisfaction of the American public toward the medical profession is that the people do not have a doctor. Let me give some illustrations which point out that the personal relationship between doctor and patient has not been considered important, and in many cases has been totally and completely ignored.

In the medical profession itself many doctors have accepted responsibility for one system or one organ without encouraging the patient to make any provision for overall medical care and guidance. The patient is referred from one to another and no one of these doctors is willing to accept complete responsibility for him. It is not surprising then that Bob Hope defined a consultation as follows: "That's when a doctor gets a patient that's loaded and says—'Let's share this guy with our friends.'" Specialists who admit that their interest in the patient is limited to a particular system must recognize the patient's total need and assist him in obtaining total medical supervision. This cannot be done by making public statements that tend to destroy the patient's confidence in his family doctor. When confidence is destroyed, all the skill and learning of medical science cannot take its place.

Outside the medical profession there are those who mean well but because of improper advice or guidance do harm to the relationship between the doctor and his patients. In industry where the worker has established a personal relationship with a doctor this relationship is frequently ignored and by-passed by a system that sends the worker to the company doctor who treats the patient without respect for or consultation with the patients personal physician. Again the fault lies in the medical profession. The industrial employer is not bound by a code of medical ethics which respects the patient's relationship with his doctor but the company doctor himself should be so bound. It is quite refreshing in those rare instances for the personal physician to receive a letter or even a phone call from an industrial physician reporting on care given to one of his patients and referring the employee back to his own doctor at the earliest practical opportunity. Most of us have experienced the confusion of taking care of a patient month after month or year after year and then suddenly learning that he is in the hospital under the care of a company doctor who totally ignored the patient's personal relationship and choice. The ideal solution to this problem in many instances is an insurance plan whereby the patient has freedom of choice of his physician. If there are situations where this cannot be done the company doctor or industrial physician should recognize and respect the personal relationship between employee and his personal physician and should do all within his power to strengthen it rather than destroy it. It was pointed out recently by Dr. Rieke of Portland, Oregon, that private physicians are not only unfamiliar with industrial health needs and methods but are not interested in improving preventive and therapeutic services for industry. Here again we have evidence that faults lie on both sides, within and without industry, but the solution to the faults lies within the medical profession. We all must agree that the better the physician knows the patient, both

in his home and in his work environment, the better medical care he can give to him.

Public schools have frequently set up health or medical programs which ignore the personal physician. In many public school systems, no attempt is made on the part of the teacher or the principal at the time of enrollment to find out who the personal physician of each child is. When a child is injured or gets sick in school and the parents can not be reached promptly the principal takes upon himself the responsibility of sending the child to a doctor and nine times out of ten it is the wrong doctor. By asking the simple question at the time of enrollment in school, "Who is your family doctor", or "What doctor should be contacted in case of illness or injury", not only will this confusion be prevented but parents and teachers as well will be impressed with the importance of each child and each family having their own doctor. Physical examinations of the children in school by the school physician or public health physician and mass immunization programs are a poor substitute for a personal physician—patient relationship.

Dr. Getting, of the University of Michigan School of Public Health, says the family physician is more than ever before in the front line of preventive medicine and health maintenance. He points out that health departments encourage the public to go to private physicians for immunization programs, but it is necessary for the protection of the community for public immunization clinics to be held when private doctors fall down on the job or when patients do not have a private doctor. Getting points out that another public health activity that refers patients to the family physician is the school health program. In some states school children are required to be examined by a physician at periodic intervals. These examinations may be carried out by the school physician at the request of the parents whenever they do not obtain such services from their own physician.

We have a long way to go. The cart is before the horse. Why should a public health department find it necessary to persuade parents to take their children to a doctor for immunization or physical examinations. The answer lies in the fact that the family has no personal physician. Getting indicated in his address that there is lack of harmony between family physicians and public health departments; that perhaps private physicians resent the activities of public health departments and public health officials resent the attitude of private physicians. Having done public health work for seven years myself and for the past 9 years private practice, I must agree that this lack of harmony exists. What is the basis for this misunderstanding? It is simply this, a doctor who is responsible for a patient loses responsibility when the patient goes elsewhere for medical service, except with his knowledge and approval. As illustration, in my own practice I do not approve of my patients going to another general practitioner, a specialist, or a clinic (except in emergencies) without my knowledge. On the other hand in the patient's interest daily I refer patients to specialists and to clinics conducted by the health department. If every family had a family doctor, if all babies were supervised properly during the first year of life by a personal physician, and thereafter as indicated, there would be no need for public immunization clinics except in time of epidemic or disaster. The public health nurses would work in close co-operation with family physicians and friction there would be avoided. Private physicians would consider the health department as one of their most valuable assets and aids. The health of the community would be far better protected and at considerably less cost to the public budget. Public health programs are made up of: one, community services (such as sanitation, protection of food, milk and water supplies) and vital statistics (records) and two, personal services to individuals. In my opinion the personal physician should come first in these personal services and the health department program should be adapted to assist and fill gaps which cannot be filled by the personal physician.

I have spoken of interfering factors in the personal relationship, in industry, in schools and in government. There is yet another field vitally important to the medical profession in which the personal relationship between physician and patient has been ignored and in many instances damaged. I speak of our sister profession, nursing. There is increasing evidence throughout our nation that relationships between the medical and nursing professions are strained. As is true in the case of most strained relations, the cause is misunderstanding. Physicians are suspicious of the modern trend in nursing education and nurses today do not express the confidence in physicians evidenced by nurses of the past. There is cause for this misunderstanding and suspicion and lack of confidence. The attitude of the nursing profession toward the medical profession is the attitude of the nurse toward her

personal physician. In most instances she has no personal physician.

There is no doubt that nurses today get more scientific training than in the past, but emphasis on scientific training has led nurses to have more confidence in drugs and techniques than they have in physicians. It is not uncommon to hear a nurse criticise a doctor, saying that he should have given a shot of penicillin, or he certainly should have had an electrocardiogram or other test on the patient.

Medical care for student nurses in some nursing schools is quite haphazard and inadequate. They are treated as medical orphans. When the nurse gets sick the first doctor that happens along in the hall in the hospital is asked to see her and treat her. Later during another illness the same system is used with a different doctor. In hospitals with internes and residents, minor illness is treated by whatever interne happens to be in the Emergency Room and more serious complaints by the chief resident on a specialty service. Remember, these are her years of training, these are her years in which she forms her impressions, establishes her confidence in the medical profession and learns the principals of medical and nursing ethics. When a nurse is taught in training that it doesn't make any difference which doctor takes care of you when you are sick, that the thing to do is to first make your own diagnosis and then pick out a specialist in that field; when this is her training, she graduates with no appreciation of the relationship between a patient and his personal physician because she has not experienced such a relationship. I do not think that we as doctors should underestimate the influence which our graduate nurses in our communities have in moulding public opinion in medical matters. In our hospitals today there are over one hundred thousand student nurses and over two hundred fifty thousand graduate nurses. This does not take into account those who have graduated, married and are not working. It is extremely important that they graduate from nursing school with confidence in doctors. While they see us at our best, they also see us at our worst, and frequently judge us accordingly. Later, whether they are still practicing the nursing profession or whether they are housewives and mothers, they serve as consultants for their neighbors and advisors on where to get good medical care. It is not enough for nurses to be told that it is unethical for them to interfere with the doctor-patient relationship, they should be impressed with its importance and their responsibility to strengthen it in their patients and practice it in their own lives and families—because this system provides the best medical care for all.

What is the answer to these problems? In my opinion the answer to these problems lies in the American Academy of General Practice. By our definition the general practitioner serves as family physician and medical advisor, and he may devote particular attention to one or more special fields. Let a general practitioner in addition to serving as a family counselor and advisor be competent in special fields. Of course, he cannot get his board in a specialty, if in order to do so he must sign away his patient's rights and his right to practice according to the oath of Hippocrates, that is, according to his ability and judgment. But he can become competent, and he will be recognized as such, not only by his patients, but also by his fellow physicians who are willing to face reality.

I would even go further, I would invite those who are members of specialty groups and those who have their boards in specialties to consider first of all that they are doctors, and that their first duty lies to the patient and not to the board. I would invite them to serve as family physicians and personal counsellors and advisors to their patients, practicing according to their ability and judgment, even though by so doing they may invade the fields which they have been told are sacred to others. Those who choose to remain in the narrow medical and surgical specialties and who do not wish to serve as personal physicians must be content to render their peculiar type of service to other doctors' patients who have been referred to them for special examinations or treatments, but they cannot claim any patients of their own.

Our code of ethics denies the right of any physician to deliberately step in and take over another physicians' patient. I would go even further. Not only should we adhere to the principles of medical ethics in this regard, but we should at every opportunity persuade patients in the home, in the office, and over the telephone that they should maintain a faithful and loyal relationship with their doctor. When we see patients in emergencies let us be careful to return them to their regular doctor at the earliest opportunity. Patients do not know that this is the proper and ethical procedure. It is up to us to tell them on every occasion. Let

us make sure that our patients know the meaning of a personal relationship, know what to do in case of emergency and understand that consultation will be had whenever feasible or desired. This type of patient education can stimulate patient loyalty, inspire confidence and prevent drifting.

When patients are referred to other physicians let it be done in an orderly and clear manner which can lead to no confusion. The referral form drawn up by the California Academy of General Practice and now being used in many states is an excellent way to avoid misunderstanding as to what is expected of the doctor to whom the patient is referred. It can leave no doubt that the patient still belongs to you and is to be returned to you following the special examination or treatment.

Let us request our local and state Boards of Education to see to it that when a child registers in the public school his parent is asked who is the family doctor, and a space for his name is provided on the child's record. This can aid greatly in establishing a firm personal relationship. Let us use our influence on those responsible for nurse training to make it clear that the personal relationship between the doctor and patient is of paramount importance, and if they themselves are to get the best type of medical care they must establish such a relationship in their own lives and in their own families. Let us encourage nursing schools to arrange for a personal physician for each student nurse during her period of training, if she does not already have one in the city in which she trains.

I have referred to the Oath of Hippocrates. In closing, let me quote a few lines from the Law of Hippocrates: "Medicine is of all the arts the most noble, but owing to the ignorance of those who practice it and those who inconsiderately form a judgment of them, it is at present far behind all the other arts. Physicians are many in title but very few in reality. Whoever is to acquire a competent knowledge of medicine ought to be possessed of the following advantages: a natural disposition, instruction, a favorable position for the study, early tuition and leisure. He must also bring to the task a love of labor and perseverance, so that the instruction taking root may bring forth proper and abundant fruit. Having brought all the requisites to the study of medicine and having acquired a true knowledge of it we shall thus in travelling through the cities be esteemed physicians, not only in name, but in reality."

THE DOCTOR AND INDUSTRY*

R. B. ROBINS, M.D., Camden

I appreciate the opportunity to talk to you this evening on a subject which should be of interest to your profession and my profession.

Accidents

Accidents occur daily and exact a heavy toll of life annually. For example, in 1951 there were nearly 2,000,000 occupational injuries from occupational causes with 15,000 killed in factories and 80,000 permanently disabled. In the home, over twice these numbers are killed or injured by accidents, further contributing to the loss of working days. It is interesting, however, to note that you are actually safer in the factory than you are at home or on the highway according to statistics on accidents.

In the age group from one year of age to 35 years of age accidents are the leading cause of death. In every age group in America, accidents is one of the five leading causes of death, but in the younger age group it is in a commanding first position. The youth of America foolishly and needlessly throw away their lives.

In 1951 there were over 9,000,000 accidents in this country divided as follows:

Home Accidents	4,000,000
Public nonoccupational	2,000,000
Occupational	2,000,000
Motor vehicle	1,300,000

You see again that the old aphorism "safe at home" is not true.

With around ten million people in the United States suffering injuries from accidents each year, with over one hundred thousand deaths each year and with additional loss of billions of dollars in property damage, much study has gone into the nature and cause of these accidents. Perhaps the most important fact that these investigations have established is that accidents can be prevented.

* Address given before annual meeting of the Arkansas Association of Safety Engineers at Camden, Arkansas, January 9, 1954.

Acceptance of this has resulted in numerous "Safety First" programs which exist in schools, factories and elsewhere. Probably the major problem in accident prevention involves education of the public to the fact that accident prevention is everybody's business, and that it must be practiced continuously.

In 1913 a group of employers organized the National Safety Council—that was 40 years ago—and it was organized as an information center on industrial accident prevention. The activities of this organization, however, were expanded almost immediately to take in other phases of safety work, so that for many years the National Safety Council has been the center of accident prevention work in the United States. Similar organizations patterned after it now exist in most other countries. Accident prevention is taught in all grade schools and many schools have special safety patrols. In most industrial organizations there is now a safety director, who is responsible for accident prevention and safety education. This program has had a telling effect in reducing accidents and you safety directors are due a great vote of appreciation.

Prevention of Accidents

Automobiles are the major single cause of accidental death. Deaths are not caused by mechanical failure of the machine to any extent, but are caused in most instances by the drivers and by pedestrians. Pedestrians account for a large percentage of fatalities. As far as drivers are concerned the two major factors in producing accidents are excessive speed and alcohol. Alcohol produces impaired judgment and impaired muscular control. Traffic accidents could almost be completely eliminated by adequate driver control.

As I have mentioned before, the factory is safer than the home as far as accidents are concerned. Carelessness in the home is the cause of most accidents. About half of all accidental deaths in the home result from falls, and one-fifth from burns. Rickety furniture is a constant hazard, especially when it is used instead of a step ladder. Throw rugs and objects left on the floor often cause serious falls. Much could be said about prevention of home accidents, but that is not especially within the province of this talk this evening.

Occupational or industrial accidents have always been a major source of injury and death. Falls and accidents in handling objects account for about half of all industrial accidents. Industrial accident prevention requires the training of workers in safe practices and that is your objective. Attention to the construction of safer machinery has been of great help and most modern industrial machinery is well equipped with safety devices. Workmen's Compensation Laws which have made the employer responsible for accidents have done much to make industry safety conscious.

The program of preventing occupational accidents is based upon two things: (1) eliminating or modifying unsafe conditions, and (2) preventing unsafe acts.

Unsafe conditions are rarely difficult to correct. Unsafe acts are a more difficult problem in prevention because of that extreme variable, —the human being. Development in each worker of the knowledge, skill, practices and attitudes necessary for promoting his own safety and the safety of others is a problem strictly of education. Many individuals, however, appear to be incapable of working with safety in certain jobs. We have what is called the "accident-prone" individual. In industry there is the problem of locating the right job for every worker and the right worker for every job.

Industry and Health

Industries are, and should be, very much interested in the health and lives of their employees. Industries have learned that pennies spent on accident prevention have resulted in dollars saved on compensation payments. Hospital wards are no longer filled with the human wreckage of factory accidents.

We in the medical profession are happy to notice that more and more people these days are covered by some form of voluntary health insurance. In fact it is becoming more and more a rarity for an individual admitted to a hospital to pay the major part of his hospital and medical expense. Most of these insurance policies take the sting out of large medical expense, but do not cover the entire amount.

Labor unions have become health conscious and I believe that management will in the future have to recognize this fact in the liberalization of "fringe benefits" in providing economic advantages to workers in lieu of actual wage raises. Hospitalization and surgical insurance partially or totally financed by the employer is being done in many instances, and it is my feeling that it will be done more and more in the future.

In 1951 the average fringe payments reported by a representative cross section of American industrial firms amounted to $644 per year per

employee, paid in addition to actual wages. These were largely related to the health of the employees such as hospitalization and surgical insurance, pension plans with provision for premature retirement due to permanent disability, etc.

In regard to voluntary health insurance, I have in mind one industrial organization where the employee **only** pays the premium for an insurance policy that gives inadequate coverage and is unsatisfactory from both the employee's standpoint and also from the physician's standpoint; on the other hand, I have in mind another organization where management meets the employee fifty-fifty on the premium and a policy prevails that gives satisfactory coverage from both the employee's and the doctor's standpoint.

Industry must realize that voluntary health insurance when it is adequate redounds to their economic advantage. It reduces sickness absenteeism and labor turnover, it cuts compensation costs and it improves employee morale. It has its humanitarian as well as its economic advantage.

I want to interject here some information that I do not believe is generally known. Many people do not realize that the average doctor spends 12% of his working hours doing charity work. The dollar value of the time given to charity patients by the average M.D. is more than $3,000 annually.

Many lay people feel that doctors make too much money for the work that they do. Let me tell you that the figures show that the general practitioner works approximately 62 hours a week. Using the 40-hour work week as the accepted union work-week, you see the doctor works 22 hours overtime. Five hours represents Sunday work—that means double time according to the usual union. In order to determine the hourly base pay, we must assume then that the doctor receives time and a half for overtime work and double time for Sundays. Therefore, the doctor would be credited with 75 hours per week or 3,750 hours per year. The average net income for the general practitioner in this country is $14,098 annually. When you divide this according to the hours worked, then you find that the doctor actually receives $3.70 an hour for his work. Compare this in certain spots with $3.25 an hour for bricklayers, $3.10 an hour for carpenters and equally high incomes for master plumbers, tool and dye workers, etc. Actually doctors receive compensation for their highly skilled profession only on a par with the so-called skilled craftsmen.

Physician-Management-Employee Corporation

In closing a few words may be said about physician-management-employee cooperation. Physicians desire to be fair to both the employer and the employee. Physicians have no patience with imposition on the part of management toward an employee; neither do they have any patience with an employee who wants to "gold-brick" or impose on an insurance carrier. Malingering is something that most physicians terrificily abhor and it is something that is not difficult to detect either.

I know that safety directors want a good safety record and that they zealously guard their safety records sometimes to an extreme degree. According to the rules of scorekeeping in such matters, only injuries resulting in actual disability affect the record. You do not want loss of time from work on account of an injury if it is at all possible to prevent it. We know that, but sometimes the best interest of the injured worker is possibly lost sight of. The doctor must make the real decision as to what is best for the welfare of the patient . . . regardless of the safety record figures. Sometimes we are asked that a newly injured man, on crutches or in a heavy cast, be delivered to the clockhouse for the purpose of simply punching his time card to show for the sake of the record that he is able to work and avoid deceptively a lost-time accident. With the physician, gentlemen, the welfare of the patient must always be the first consideration regardless of the safety record.

SUMMARY

1. An employee is actually safer in the factory than he is at home or on the highway.
2. Voluntary health insurance with premiums financed fifty-fifty by the employer and employee is recommended.
3. The doctor spends 12% of his working hours doing charity work.
4. The average general practitioner receives actually $3.70 an hour for his work.
5. The welfare of the injured employee must come first regardless of the safety record figures.

THE OPHTHALMOSCOPIC SIGNS OF HYPERTENSION AND ARTERIOLAR SCLEROSIS*

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For years all of us have been observing the retinal blood vessels and making our appraisal of the changes found in hypertension and in arteriolar sclerosis.

After bifurcation of the central retinal artery the vessels are no longer arteries but arterioles. When speaking of the terminal arteries of the fundus we shall use the term arterioles.

It is now recognized that the ophthalmoscopic changes of hypertension usually precede those of arteriolar sclerosis. We will therefore begin by considering the fundus in hypertension.

Hypertension

The criteria for hypertensive changes are primarily narrowing or constriction of the retinal arterioles. This constriction may be of a diffuse or localized variety or both.

Normally the caliber of the retinal arterioles is 2/3 to ¾ the caliber of the venules.

Grade I hypertension consists of generalized, diffuse constriction or narrowing of the arterioles, especially of the nasal arterioles with no involvement of the temporal arterioles.

Grade II hypertension consists of the generalized constriction of the arterioles as seen in Grade I plus localized irregularities which are indicative for more severe spasm.

Grade III hypertension consists of more extreme generalized narrowing and irregularity of the arterioles as seen in Grade II plus retinal hemorrhages and exudates. These hemorrhages are thought to be due to a disturbance in the nutritional state of the walls of the arterioles which allows red blood cells and fibrin to escape. The exudates may be the cotton-wool patches or the hard, shiny exudates, frequently both.

Grade IV hypertensive retinopathy consists of all those factors found in Grade III hypertension plus papilledema.

Arteriolar Sclerosis

Bell in his textbook of pathology lists six different types of arterio-sclerosis.

Arteriolar sclerosis is the type confined to vessels such as those of the fundus and has its own clinical and pathological characteristics.

Arteriolar sclerosis is caused by hypertension and its changes represent damage to the arterioles from elevated blood pressure.

The criteria for the arteriolar sclerotic changes consist of broadening of the light reflex of the arterioles, tortuosity of the arterioles, and tapering and banking of the venules at the arterio-venous junction.

By broadening of the light reflex is meant a breadth that is half or greater of the width of the blood column, progressing to the copper-wire and terminating in the silver-wire arterioles.

By tortuosity is meant an angulation of the arterioles and not the smooth curves which one finds in congenital tortuosity.

By tapering and banking is meant evidence of stasis at the arterio-venous junction, so that the proximal and distal portions of the vein do not form a continuous line.

Grade I arteriolar sclerosis consists of the earliest evidence of increase in width of the light reflex of the temporal vessels, and an increase in the tortuosity of the arterioles in the macula region.

Grade II arteriolar sclerosis is a more advanced stage of Grade I.

Grade III arteriolar sclerosis consists of copper-wire colored arterioles in all quadrants, the tortuosity of the arterioles usually is maximum in all quadrants, the arteriovenous crossings show tapering and/or banking.

Grade IV arteriolar sclerosis is manifested by the silver-wire color of some of the arterioles, the tortuosity of the arterioles usually is maximum, the banking at the arteriovenous crossings indicates that the blood in the venules is definitely impeded peripheral to the crossing and the venule is distended.

Summary

The ophthalmoscopic signs of hypertension and arteriolar sclerosis are listed. An elastic but uniform system of grading the severity of the ophthalmoscopic changes of hypertension and arteriolar sclerosis is outlined.

* Chairman's Address, Section on Eye, Ear, Nose and Throat, Arkansas Medical Society, Little Rock, April 21, 1953.

INDEX

THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

VOLUME L

June, 1953 - May, 1954

ABBREVIATIONS—

(O) Original Article; (SP) Special Article; (E) Editorial; (OB) Obituary; (R) Resolution.

— A —

Address of Edward J. McCormick (E) 52
Address, President's (SP) 1
Address, President's Inaugural (SP) 3
Agee, E. C. (OB) 165
American Medical Association, 77th Clinical Meeting (E) 151
Annual Committee Reports (SP) 177
Antibiotics, The Mechanism and Action of (O) 134
Arkansas Eclectic Medical Association, Resolution of (R) 86
Arkansas Medical Society Officers for 1953-54 (SP) 5
Auxiliary News (SP) 28; 42; 94; 132; 155

— B —

Bailey, Orville T. (O) 47
Barlow, Brian E. (OB) 35
Best, A. L. (OB) 71
Blanchard, Kenneth C. (O) 134
Bollmeier, L. N. (OB) 55
Brooks, Cadmus M. (OB) 90
Buchanan, A. S. (OB) 55
Buchanan, Joseph A. (O) 32; (O) 158
Burge, H. Gideon (OB) 23

— C —

Calcote, R. J. (OB) 55; (SP) 86; (R) 90
Cancer, Recent Trends in the Diagnosis of (O) 83
Cancer, the New Look—A Review (O) 95
Carcinoma, Lower Large Bowel, Treatment of (E) 206
Cardiac Arrest, Management of (O) 198
Carroll, Grayson (O) 80
Committee on Cancer Control (SP) 43; 59; 77; 111; 133; 157; 167
Committees for 1953-54 (SP) 15
Constitutional Amendments (SP) 146

— D —

Dermatology, Moderate Trends in (O) 201
Diverticulitis of the Colon (O) 44
Dix, Albert S. (SP) 214
Doane, S. N. (OB) 165
Doctor and Industry, The (SP) 220
Dodd, Katharine (O) 174
Draft Law, The (E) 52
Drennen, S. A. (SP) 1
Duncan, M. D. (OB) 108

— E —

Early Doctors in Fort Smith (SP) 108
Ectopic Pregnancy (Tubal Abortion) in a Rudimentary Horn of the Uterus, Associated with Renal Agenesis (O) 18
Ellsworth, E. H. (OB) 55

— F —

Fibrosis, Acute Diffuse Interstitial, of the Lung, Report of a Case (O) 60
Fluid Balance, Everyone's Specialty (O) 85
Fowler, W. A. (O) 116
Freeman, Theodore (R) 4

— G —

General Surgery, Recent Trends in (O) 142
Gowdy, John M. (O) 78
Growdon, James H. (O) 83; (O) 142

— H —

Hamilton, Wilburn M. (O) 32
Hand, Albert (O) 168
Harris, Fred Wm. (OB) 90; (R) 126
Harwell, C. M. (OB) 165
Hawkins, M. C. (OB) 195
Hemorrhagic Disease (O) 168
Henry, Lewis M. (O) 223
Hodges, T. L. (OB) 165
House of Delegates of A.M.A., Roundup Story of (E) 151
Houston, Hugh (OB) 55
Hughes, Raymond (O) 201
Hypertension and Arteriolar Sclerosis, The Ophthalmoscopic Signs of (O) 223

— I —

Internal Medicine, What's New and What's True In (O) 120

— J —

Job of the Individual Physician, The (E) 153
Joint Committee on Chest X-Ray, The Report of the, American College of Chest Physicians and American College of Radiology (E) 124
Jones, John Walter (O) 137
Jordan, Thomas S. (OB) 137

— K —

Kahn, Alfred, Jr. (E) 36; (O) 85; (O) 95; (E) 226
Kidney Stones, Post-Operative Care to Prevent Recurrence of (O) 80
Kosminsky, Leonce J. (OB) 35
Kumpuris, Frank (E) 206

— L —

Leukemic Reaction, Pseudo, to Pertussis, Report of Two Cases in Identical Twins (O) 64
Long Road, The (SP) 96
Love, George M. (OB) 35
Lutterloh, C. H. (OB) 127

— M —

Mitchell, Joseph G. (OB) 23
McLaurin, J. W. (O) 98
Monfort, J. J. (O) 18

— N —

Nichols, J. W. (OB) 55; (R) 51

— O —

Obstetrics and Gynecology, What's New in (O) 139
Obstetrics in General Practice (O) 116
Ochsner, Harold C. (E) 102
Osteopathy and The Medical Profession (E) 192
Otolaryngology Today, Its Limitations and Opportunities (O) 98

— P —

Partnership, A New (SP) 19
Pediatric Surgery, Recent Advances in (O) 158
Pediatric Urology, Modern Concepts in (O) 161
Peeler, C. M. (OB) 55
Personal Physician, The Art and Science of a (SP) 214
Pioneer Doctors in Ashley County (SP) 107
Pioneer Doctors in Clay County (SP) 25
Pioneer Doctors in Mississippi County (SP) 107
Pioneer Doctors in Pope County (SP) 71
Pioneer Doctors in Yell County, Histories of (SP) 72
Practice of Medicine, Comments on the (SP) 29
Practice of Medicine is a Religion, The (SP) 112
President, Our (E) 22
Proceedings of 78th Annual Session (SP) 7
Proceedings of 29th Annual Session of Woman's Auxiliary (SP) 16
Public Relations Column (SP) 36; 58; 67; 86; 127; 192

— R —

Radiologist, A, "Who is Going to Regulate Whom?" (E) 102
Reasons, W. B. (OB) 194
Rheumatic Fever—Practical Aspects (O) 172
Richardson, Fount (E) 86; (E) 153
Riley, J. D. (O) 78
Roberts, John N. (OB) 90
Robins, R. B. (SP) 220
Rosenzweig, Joseph L. (O) 172

— S —

Sparks From the Secretary (SP) 23; 54; 68; 104; 130; 154
Smith, John W. (SP) 19
Stenosis, Mitral, Surgical Treatment of, and Report of Three Cases (O) 32
Stewart, Bill Dave (O) 198
Stone, Harvey B. (O) 44
Sugg, Alfred R. (SP) 112
Swindler, E. B. (OB) 55
Switzer, D. M. (OB) 23

— T —

Thompson, Charles A. (O) 120
Tuberculosis Abstracts (SP) 24; 38; 50; 70; 88; 105; 128; 148; 163; 193
Tuberculosis Problem in Arkansas (O) 78
Tumors of the Brain and Spinal Cord in Children (O) 42
Typhoid Fever in Children in Arkansas (O) 174

— W —

Washington, The Month In (E) 150
"We'll Watch It"—The Patient's Death Knell (E) 36
"When the Red Wins" (E) 226
Wilson, Stewart M. (O) 60
Wrong Ideas About Doctors, Too Many (E) 22

— Y —

Your Job (E) 86

—★ Editorial ★—

WHEN THE RED WINS

ALFRED KAHN, JR., M.D., Little Rock

There is a saying at the roulette table, "When the red wins, the black loses." In a broad sense this is applicable to the orderly development of the medical sciences—particularly so to the see-saw therapy of certain diseases. The surgical sciences have invaded the purely medical fields to bring dramatic relief to patients suffering from certain diseases formerly considered to be hopeless; this even includes the "dam" diseases of mitral stenosis, cirrhosis of the liver, and internal hydrocephalus.

On the other hand, hypertension has run a different cycle. Internal medicine is currently the treatment of choice. Originally, hypertensive therapeusis consisted of depressant agents as phenobarbital and bromides. It was felt that cortical depression would in some manner decrease the activity of the lower brain centers responsible for the neurogenic element of hypertension. Experience has proven these drugs to be of very limited value.

With no other suitable drug therapy available, sympathectomies were tried. There is complete agreement that hypertension is caused by constriction of the small arterioles. By severing the sympathetic outflow to these arterioles, constriction due to nervous stimulation could theoretically be stopped. On the other hand, there is some evidence that the arteriole constriction can be due to circulating chemical substances, and of course, in these cases severance of the nerve supply will be of no avail. Most cases of hypertension do get a fall in blood pressure with nerve blockade, but it has been difficult to predict in advance which cases will benefit most by surgical sympathectomy. Many early surgical successes have recurring hypertension; this probably is due to re-growth of sympathetic fibers. The number of early and late failures, after surgical sympathectomy, has led to it's disfavor.

The current treatment vogue is for the use of hypotensive drugs. One of the most successful and widely used programs consists of a combination of Hexame thoniumchloride and Apresoline. The former drug specifically acts as a blockading agent in the autonomic ganglia—preventing the released acetylcholine from transmitting either sympathetic or parasympathetic nerve impulses. Very curiously, although acetylcholine is released elsewhere, Hexamethonium does not act as a barrier. The principal effect of this drug is when the patient stands up, as it interferes with the arterioles in the legs, and their ability to constrict and resist the effect of gravity on blood. Apresoline acts differently; it apparently inhibits a chemical pressor substance released from the brain; and it also appears to act on certain centers in the hypothalamus, causing an inhibition of nerve impulses causing peripheral vasoconstriction. The combination of these two drugs will, in a majority of instances, reverse the effects of malignant hypertension. Unfortunately, the patient may develop tolerance to the drugs. Another of the more potent hypotensive drug group is Veratrum. There are several related drugs available: a pure substance, Proveratrine, from Veratrum Alba, and a mixture from Veratrum Viride, called Veriloid. This drug reduces the blood pressure by stimulating the nerves leading to the vasomotor center. There are several interesting facts about this powerful agent: Although effective parenterally, the drug is often a failure orally in the same patient; Secondly, at times an electrocardiogram after Veratrum may simulate the tracing of myocardial infarction.

Among other currently used drugs are Rauwolfia Serpentina, the Dibenamine group, and a group of drugs related to Ergot. Rauwolfia is said to have a milder hypotensive effect, and, since it acts at a cortical level, may cause drowsiness, if pushed in large doses. The hydrogenated ergot preparations are powerful agents, but should be given parenterally to get the maximum effect; the same can be said of the Dibenamine group.

It is obvious that great strides have been made in the therapy of hypertension. A completely satisfactory treatment is still not available. Whether the next phase of treatment will be medical or surgical cannot be predicted at this time.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE PROBLEM OF TUBERCULOSIS IN PSYCHOTICS

By ABRAHAM M. BALTER, M.D., MICHAEL PILPEL, M.D., HAROLD S. HATCH, M.D., and GEORGE N. J. SOMMER, JR., M.D., The American Review of Tuberculosis, November, 1953.

Case finding of active tuberculosis is at such a high level of efficiency in this country that it can well be asked why we allow a dangerous focus of tuberculosis infection to go inadequately explored and reluctantly treated.

This focus comprises the patients who are hospitalized in institutions for the mentally ill. The danger of exposure of psychotic patients to tubercle bacilli is serious and its importance to society is but dimly realized. It is near to absurdity to make great effort to find tuberculosis in the general population and to ignore it in the psychotics. The number of tuberculous patients varies with different institutions, but, on the whole, it is much higher than in the general population. Various theories are offered to account for this increased incidence: that the psychotic undergoes some kind of metabolic change in which a failure of resistance renders him an easy victim of the disease; that the psychosis causes a person to eat poorly, to become dilapidated, and to be careless of himself; or that he is in intimate contact with undiscovered cases of active tuberculosis. Probably all factors are active. Whatever the reason, the incidence of tuberculosis is greatest in those patients who have been hospitalized for five years or more.

When the psychotic is identified and placed in an institution, he is too often dismissed from mind. The psychotic himself has withdrawn from the world of reality and from acceptable human activity. But the phthisiologist may not withdraw from the vexatious reality presented by the tuberculous psychotic. Hopelessness has no place in the treatment of mental illness. Psychotics can and frequently do recover; and, having recovered, they are at a grievous disadvantage if they must be hospitalized for the tuberculosis which they acquired while under treatment for the psychoses.

Every form of diagnostic procedure should be carried out with psychotic patients. Whether it is sputum collection, extraction of gastric contents, roentgenograms of the chest, planigrams, fluoroscopy, or bronchoscopy, it can be done. Free use of sedation may be employed successfully with any diagnostic procedure. The patient must never be allowed to order his own regimen by defeating the efforts of his physician.

There are no statistics regarding the difference in infectiousness between the psychotic tuberculous patients and the nonpsychotic. The impression, however, is that the former are more infectious because many are dilapidated; and to discover them is both difficult and time consuming. Tuberculosis can make great advances between yearly roentgenograms.

Our impression of the course of tuberculosis in the mentally ill cannot as yet be reinforced by statistical data. There has been an impression, however, that tuberculosis in the mentally ill is more indolent, less responsive to treatment, and it is more prone to relapse. Whether this would be true if tuberculous psychotics could be treated under ideal conditions, is uncertain; but our results indicate that the course of tuberculosis in the mentally ill relates directly to the care and attention given to prevention and treatment.

The history of illness given by a psychotic may be surprisingly accurate, or it may be misleading, irrelevant, and absurd; or there may be no history at all. Diagnosis must often depend on factors other than the history. The physician must maintain a high "index of suspicion" for the disease, and all personnel must be thoroughly indoctrinated to watch for changes of attitude and behavior in patients. If the physician is alert to the valuable information brought to him by nurses, aides, and others who come in contact with patients, he will be quick to order the roentgenogram. Diagnostic methods should then be followed as closely as with nonpsychotics. The patient may not be cooperative but, with persuasion, gentle handling, and with proper sedation

and timing, the desired film can be obtained. Patients vary in their mood, and there are frequent intervals when they are cooperative. Refusal to eat is a frequent occurrence among psychotics. The resulting loss of weight should be a warning signal to the physician.

The problems presented in the treatment of tuberculous psychotics resemble those of diagnosis, but the difficulties are greater. The patterns of treatment for the psychotic must be the same as those for the nonpsychotic.

Rest is still the basis of treatment. Great care is taken to teach all patients the rest regimen, although many patients require longer and more persistent training. Among these will be a minimum who will break treatment no matter how carefully taught and how closely watched. How large this irreducible minimum is, will vary with the tolerance of the personnel to breaks in treatment. An energetic, well-trained, and careful group will have only a small number of uncooperative patients.

It is reasonable to ask what may be done with a patient who is overactive, resistive, assaultive, and not amenable to persuasion, but who has far advanced tuberculosis with a sputum rich in tubercle bacilli. Treatment then becomes a joint matter between the phthisiologist and the psychiatrist. Shock therapy and lobotomy may be in order and, if so, can be carried out as with the nontuberculous psychotics. These are instances where the psychosis is the disease of greatest urgency, but, when the patient becomes more amenable to the hospital regimen, tuberculosis once again becomes the more important problem. These patients require much more care and attention than either the nonpsychotic tuberculous or the nontuberculous psychotic.

Where the indications are good, a combination of surgical procedures with antimicrobial therapy is the method of choice. Thoracoplasty, lobectomy, segmental and wedge resections are carried out exactly as with nonpsychotics.

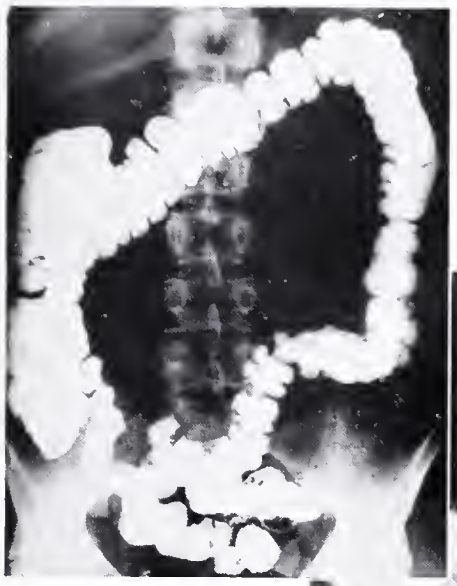
In addition, a great deal may be expected from extensive employment of streptomycin with para-aminosalicylic acid or with isoniazid. Minimal and moderately advanced cases show a surprising response and the more advanced cases may be improved to a degree where surgical procedures become possible. Patient cooperation can be a problem in antimicrobial therapy. Ordinarily para-aminosalicylic acid or isoniazid by mouth and the injection of streptomycin are accepted by psychotics with as little resistance as by nonpsychotics. Sometimes much persuasion is necessary, and occasionally a patient must be held while he receives his injection, and the oral medication must be given in soluble form mixed with food. With a stable group of patients who may not leave the hospital at will, it is possible to apply all methods of treatment as they are indicated.

Originally, our efforts began with systematic case finding and continuous re-examination of our tuberculous patients, both active and inactive, and regular follow-up of all personnel. Patients were systematically trained to follow the rest regimen; collapse therapy was employed whenever indicated. The current regimen of streptomycin combined with para-aminosalicylic acid and isoniazid, has given gratifying results. With vigorous application of all methods of therapy the whole patient, with his tuberculosis and psychosis, can be treated successfully and tuberculosis in a neuropsychiatric institution can be controlled.

OBITUARY

JOSEPH F. JOHN, age 79 years, died at Eureka Springs March 24th. Born April 10, 1875, in Cleveland county, he attended the Clary Training School at Fordyce and the University of Arkansas, receiving his medical degree from the University of Nashville Department of Medicine in 1905. First locating at Grady, he moved to Eureka Springs in 1909. He was married to Miss Lilian Ada Leonard in 1907, who, with a son and a daughter, survives him. He was the oldest member of the Carroll County Medical Society and held all of its offices. He served as councilor and vice-president of the Arkansas Medical Society. He was a member of the Masonic bodies and had been affiliated with a number of other fraternal organizations. He was a charter member and past-president of the Eureka Springs Rotary club. He was a past-president of the Chamber of Commerce, a member of the board of education and a steward in the Methodist church. He served as city health officer from 1915 to 1953.

GEORGE R. STORM, age 64 years, died at Helena April 2nd. Born in Brookhaven, Mississippi, he graduated from Jefferson Medical College in 1913 and had practiced in Helena and West Helena since 1923. He served in World War I and was a member of the American Legion. Surviving are his wife and a son.



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PERSONALS AND NEWS ITEMS

Robert Watson has been appointed a member of the Little Rock Board of Health.

R. C. Dickinson was the subject of a recent special article in the Arkansas Democrat.

The following attended the Cleveland session of the American Academy of General Practice: J. M. Kolb, Clarksville; Fount Richardson, Fayetteville; C. C. Long, Ozark; R. H. Whitehead, Jr., DeWitt; L. H. McDaniel, Tyronza; R. B. Robins, Camden; Arthur Parks, Fordyce, and C. R. Ellis, Malvern.

The following county auxiliaries contributed to the American Medical Education Foundation during March: Boone, Columbia, Greene, Clay, Jefferson, Monroe, Pulaski, Southeast Arkansas and Union.

Receipt of a contribution to the American Medical Education Foundation during March from Edwin F. Gray, Little Rock, has been announced.

Chas. D. Tibbels, Black Rock, was the subject of a special article in the Memphis Commercial Appeal on April 4th.

Registered at the Chicago meeting of the American College of Physicians were: A. A. Blair, Chas. T. Chamberlain, J. Ken Thompson and Louis Lambiotte, Fort Smith; J. E. Doherty, Alfred Kahn, Jr., O. C. Melson and R. W. Talley, Little Rock.

The following attended the Ninth National Rural Health Conference in Dallas, March 4-6th; Arkansas Medical Society representatives: Dr. Chas. R. Henry; Dr. and Mrs. Ben Saltzman; Dr. and Mrs. John Kirkley; Mrs. Mason G. Lawson; Arkansas Dental Association representatives: Dr. Bryant E. Pake, Dr. and Mrs. Maurice Friedman; Extension Service of the University of Arkansas representatives: Mr. and Mrs. A. H. Vines, Miss Helen Robinson; Arkansas Farm Bureau Federation representatives: Mr. and Mrs. Waldo Frasier, Joe Hunnicut; Arkansas State Board of Health representative: Dr. John Herron, and Arkansas Medical and Hospital Service, Inc., representatives, Jack Redheffer, A. G. Bedell.

D. W. Goldstein, Fort Smith, addressed the Camp Chaffee staff meeting March 23rd on "Skin Malignancies and Common Skin Diseases."

L. H. McDaniel, Tyronza, addressed the Shelby County, (Memphis) Tennessee Red Cross campaign workers recently.

Paul L. Mahoney and H. A. Bailey, Little Rock, attended the annual meeting of the New Orleans Eye, Ear, Nose and Throat Hospital Alumni Association during March.

George G. Regnier, formerly with the University of Arkansas School of Medicine has become associated with Drs. Rhinehart, Rhinehart and Norton at Little Rock for the practice of radiology.

The postgraduate course in surgery held at the University of Arkansas School of Medicine April 1st and 2nd was addressed by F. R. Buchanan, P. O. Thomas, H. Monroe, W. F. Becker, New Orleans; M. Hara, H. Schwander, J. H. Growdon, Frank Padberg, H. G. Hollenberg, C. W. Shafer, Normal Johnson, G. O. Dean, J. A. Buckman, B. D. Stewart, M. J. Kilbury, Jr., Robert Watson, J. W. Headstream, R. E. Rowen, James Smith and A. J. Brizzolara.

The Pulaski County Medical Society was addressed April 5th by Wingate M. Johnson, Winston-Salem, N. C., on "The Care of Older Patients."

Alfred Kahn, Jr., Secretary

PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met April 7th at the Nobel Hotel in Jonesboro with 18 members present. A talk by Dr. Charles Pack of Memphis, "Care of the Premature Infant", was followed by a question and answer period.

BOOK REVIEW

Music Therapy. Edited by Edward Podolsky, M.D. Pp. 335. New York: Philosophical Library, 1954. Price $6.00.

Those responsible for recreation and therapeutic measures of an ancilliary type in hospitals, especially if devoted to psychiatry, should find this volume of interest.

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